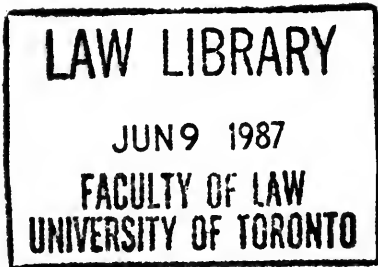
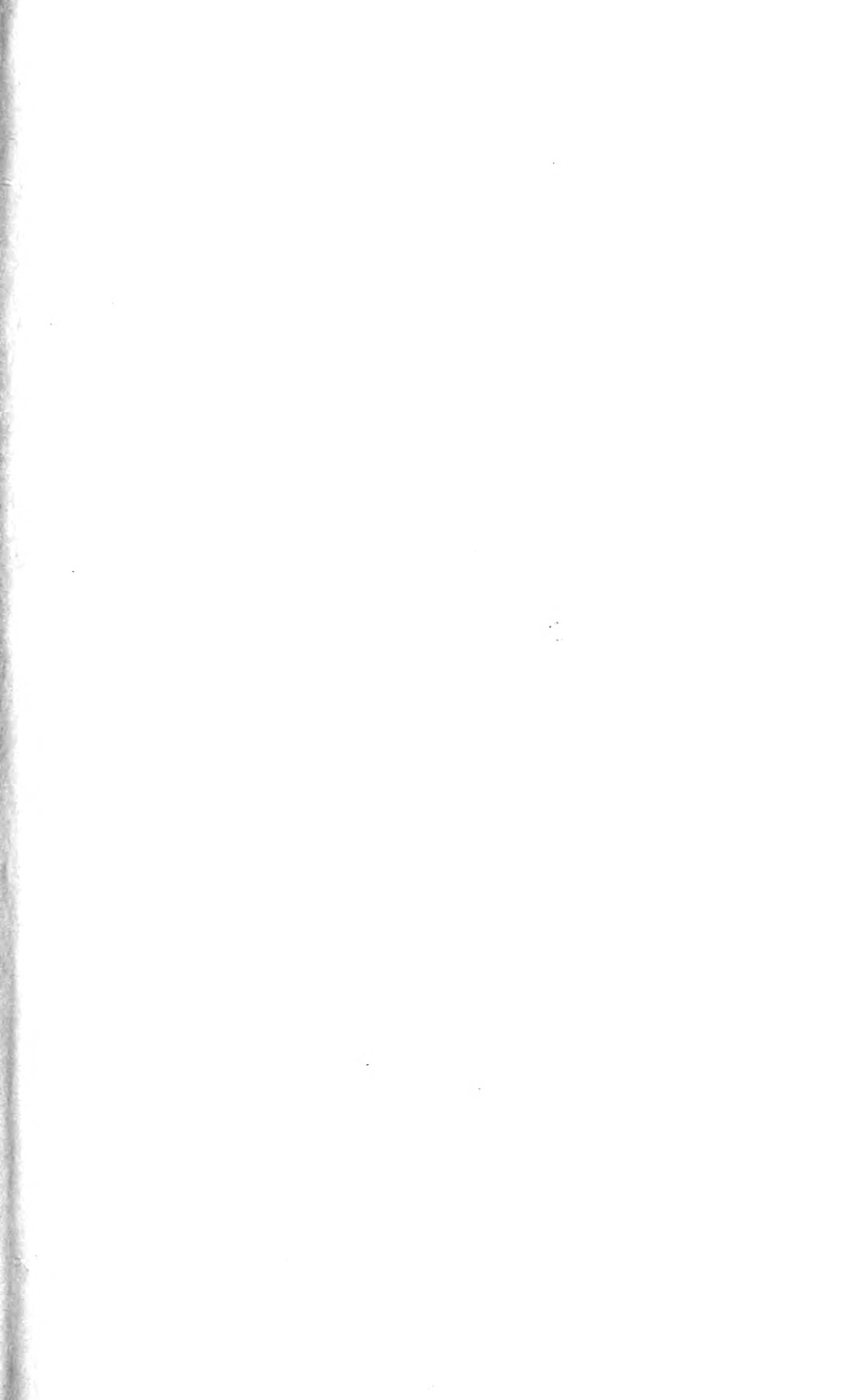


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ONTARIO REGULATIONS

1986

REGS. 409-546

Publications Under The Regulations Act

August 2nd, 1986

ONTARIO GUARANTEED ANNUAL INCOME ACT

O. Reg. 409/86.

Guaranteed Income Limit.

Made—July 9th, 1986.

Filed—July 15th, 1986.

REGULATION MADE UNDER THE ONTARIO GUARANTEED ANNUAL INCOME ACT

GUARANTEED INCOME LIMIT

1. Commencing with the month of July, 1986 the guaranteed income limit for purposes of,

- (a) subclause 1 (j) (i) of the Act is \$8,651.52;
- (b) subclause 1 (j) (ii) of the Act is \$7,201.68;
- (c) subclause 1 (j) (iii) of the Act is \$7,201.68; and
- (d) subclause 1 (j) (iv) of the Act is \$14,403.36. O. Reg. 409/86, s. 1.

2. Ontario Regulation 285/86 is revoked.

3. This Regulation shall be deemed to have come into force on the 1st day of July, 1986.

(9070)

31

SMALL BUSINESS DEVELOPMENT CORPORATIONS ACT

O. Reg. 410/86.

General.

Made—July 9th, 1986.

Filed—July 15th, 1986.

REGULATION TO AMEND REGULATION 915 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE SMALL BUSINESS DEVELOPMENT CORPORATIONS ACT

1. Section 1 of Regulation 915 of Revised Regulations of Ontario, 1980 is revoked and the following substituted therefor:

1. For the purposes of clause 1 (1) (e) of the Act, the amount of consideration paid in money for which equity shares are issued shall be calculated as the aggregate consideration expressed in Canadian currency for which the equity shares referred to in clause 4 (c) of the Act from time to time outstanding were issued. O. Reg. 410/86, s. 1.

2.—(1) Subsection 3 (1) of the said Regulation, as amended by section 1 of Ontario Regulation 587/81, section 2 of Ontario Regulation 300/83 and section 1 of Ontario Regulation 25/84, is further amended by striking out "and" at the end of clause (c), by adding "and" at the end of clause (d) and by adding thereto the following clause:

(e) any business activity that involves the development of computer application or system software programs that are for sale, lease or licensing by the small business and that are marketable to users without modification, other than modification by the user, where,

(i) employees of the small business carry out all of the phases of research, programming and testing, or

(ii) the small business manufactures or markets programs and the employees of the small business have carried out all of the phases of research, programming and testing of the programs,

is a prescribed business activity.

(2) Section 3 of the said Regulation, as amended by section 1 of Ontario Regulation 587/81, section 2 of Ontario Regulation 300/83 and section 1 of Ontario Regulation 25/84, is further amended by adding thereto the following subsection:

(1a) Where an investment in a small business described in subsection 19 (1) is made by a Northern and Eastern small business development corporation,

the manufacturing and processing, tourist activity and business activities described in subsection (1) and any business activity that involves the provision of services ancillary to the mining and forestry industries including,

- (a) transportation services for persons or materials to or from a logging or mining site;
- (b) transportation services provided to commercial enterprises engaged in activities ancillary to the mining or forestry industry described in clause (a);
- (c) equipment sales, rental, servicing and installation, where the sales, rental, service or installation is rendered to persons who are engaged directly or indirectly in the mining or forestry industry;
- (d) equipment sales, rental, servicing and installation rendered to a commercial enterprise that is ancillary to a mining or forestry industry described in clause (c);
- (e) the design, engineering or installation of equipment unique to or specifically dedicated for use in the mining or forestry industry or a commercial enterprise that is ancillary to the mining or forestry industry;
- (f) cone and gum gathering, forest fire fighting, reforestation and protection services provided directly or indirectly to the forestry industry;
- (g) the operation of a farm or nursery to provide seedlings or saplings to the forestry industry;
- (h) forestry and mining engineering, geological and geophysical services;
- (i) contract mine exploration services; and
- (j) assaying, geophysical prospecting, gravimetric and hydrographic services and magnetic and seismographic surveying,

are prescribed business activities for the purpose of subclause 9 (1) (b) (iii) of the Act. O. Reg. 410/86, s. 2 (2).

3. Clause 8 (5) (a) of the said Regulation, as made by subsection 5 (3) of Ontario Regulation 300/83, is revoked and the following substituted therefor:

- (a) the stated capital of the corporation and any previously affiliated corporation has not been reduced or otherwise varied; and

4. Sub-clauses 10 (a) (v) (A), (C) and (D) of the said Regulation, as remade by section 6 of Ontario Regulation

300/83, are revoked and the following substituted therefor:

- (A) have a preference over other shares as to the payment of dividends but no further right to participate in the distribution of profits of the corporation,
- (C) carry no voting rights except as required under the *Business Corporations Act, 1982*, and
- (D) carry no right to receive any property or money in excess of the fair market value or the consideration paid on the issue of the shares in the event that the eligible small business redeems, acquires, cancels or otherwise reduces the stated capital account with respect to those shares or in the event the eligible small business winds up, dissolves or reorganizes its business;

5. Section 14 of the said Regulation, as remade by section 9 of Ontario Regulation 300/83 and amended by section 5 of Ontario Regulation 25/84, is revoked.

6.—(1) Subclause 17 (c) (iii) of the said Regulation, as remade by subsection 2 (1) of Ontario Regulation 632/84, is revoked.

(2) Subclause 17 (e) (v) of the said Regulation, as made by subsection 2 (2) of Ontario Regulation 632/84, is revoked and the following substituted therefor:

- (v) the Minister is satisfied before the payment of the debt that additional equity capital in an amount equal to or exceeding the amount of the payment is being invested in the small business by any of its shareholders that is not a small business development corporation.

7. Section 18 of the said Regulation, as made by section 7 of Ontario Regulation 25/84, is revoked and the following substituted therefor:

- 18.—(1) For the purpose of subsection 8 (2a) of the Act, upon the redemption, purchase or other acquisition of an equity share issued by a small business

development corporation in consideration for equity capital in relation to which a grant or tax credit has been paid or allowed at the rate of 30 per cent, the amount of the payment from the trust fund to a shareholder of the small business development corporation is the amount obtained by subtracting the aggregate of,

- (a) any portion of the amount payable by the small business development corporation to the Minister under section 24 of the Act by reason of the redemption, purchase or acquisition of those equity shares that remains unpaid at the time of the payment from the trust fund; and
- (b) an amount equal to the amount of interest earned on the amount paid into the trust fund on the issue of that equity share from the date of issue of the equity share or the date of registration of the small business development corporation under the Act, whichever is later,

from 30 per cent of the amount for which that equity share was originally issued or 30 per cent of the consideration payable by the small business development corporation to the shareholder on the redemption, purchase or other acquisition of that share, whichever is the lesser.

(2) For the purpose of subsection 8 (2a) of the Act, upon the redemption, purchase or other acquisition of an equity share issued by a small business development corporation in consideration for equity capital in relation to which a grant or tax credit has been paid or allowed at the rate of 25 per cent, the amount of the payment from the trust fund to a shareholder of the small business development corporation is the amount obtained by subtracting the aggregate of,

- (a) any portion of the amount payable by the small business development corporation to the Minister under section 24 of the Act by reason of the redemption, purchase or acquisition of those equity shares that remains unpaid at the time of the payment from the trust fund; and
- (b) an amount equal to the amount of interest earned on the amount paid into the trust fund on the issue of that equity share from the date of issue of that equity share or the date of registration of the small business development corporation under the Act, whichever is later,

from 25 per cent of the amount for which that equity share was originally issued or 25 per cent of the consideration payable by the small business development corporation to the shareholder on the redemption, purchase or other acquisition of that share, whichever is the lesser.

(3) For the purposes of subsections (1) and (2), an amount paid from the trust fund to a shareholder shall be considered to form part of the gross consideration payable to the shareholder on the redemption, purchase or other acquisition of the share. O. Reg. 410/86, s. 7.

8. Section 19 of the said Regulation, as remade by section 3 of Ontario Regulation 632/84, is revoked and the following substituted therefor:

19.—(1) For the purposes of subsection 7 (4) and subclause 9 (1) (a) (i) of the Act, an investment by a small business development corporation is an investment in a small business primarily located in northern and eastern Ontario where the permanent establishment of the small business referred to in subclause 9 (1) (a) (i) of the Act is located in,

- (a) the County of Dundas, Frontenac, Glengarry, Grenville, Haliburton, Hastings, Lanark, Leeds, Lennox and Addington, Northumberland, Peterborough, Prescott, Prince Edward, Renfrew, Russell or Victoria;
- (b) the Town of Newcastle;
- (c) The Regional Municipality of Ottawa-Carleton; or
- (d) the Territorial Districts of Algoma, Cochrane, Kenora, Manitoulin, Muskoka, Nipissing, Parry Sound, Rainy River, Sudbury, Thunder Bay or Timiskaming.

(2) For the purposes of subsection 7 (4) of the Act, an investment by a small business development corporation shall be considered to be an investment in a small business that is a new enterprise if the small business did not carry on business before the date of the investment or commenced its business operations within the twelve months immediately preceding that date.

(3) Subsection (2) does not apply where the small business has acquired or acquires within the twelve months following the date of an investment by the small business development corporation, a significant portion of its business assets from a person who has carried on within the twelve months immediately preceding the acquisition, the same or a similar business to the business carried on or to be carried on by the small business unless such acquisition is from a receiver, receiver-manager, a trustee in bankruptcy or a secured creditor selling pursuant to a right of sale under a security agreement. O. Reg. 410/86, s. 8.

9. The said Regulation is amended by adding thereto the following section:

21. For the purposes of paragraph 4 of section 24 of the Act, an amount in respect of a "reduction of stated capital" or of a "reduction to the stated capital

accounts" shall include any amount paid or payable to the Minister under that section. O. Reg. 410/86, s. 9.

10. This Regulation shall be deemed to have come into force on the 14th day of January, 1986.

(9071)

31

PROVINCIAL LAND TAX ACT

O. Reg. 411/86.

Exemption.

Made—July 9th, 1986.

Filed—July 15th, 1986.

REGULATION TO REVOKE REGULATION 813 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE PROVINCIAL LAND TAX ACT

1. Regulation 813 of Revised Regulations of Ontario, 1980 is revoked.

(9072)

31

PROVINCIAL LAND TAX ACT

O. Reg. 412/86.

Forms.

Made—July 9th, 1986.

Filed—July 15th, 1986.

REGULATION TO AMEND ONTARIO REGULATION 303/83 MADE UNDER THE PROVINCIAL LAND TAX ACT

1. Sections 1 and 2 of Ontario Regulation 303/83 are revoked and the following substituted therefor:

1. A caution filed under subsection 33 (1) of the Act shall be in Form 1. O. Reg. 412/86, s. 1, *part*.

2. Form 1, as remade by section 1 of Ontario Regulation 12/84, and Forms 2, 3 and 4 of the said Regulation are revoked and the following substituted therefor:

PROVINCIAL LAND TAX ACT



Document General
Form 1

CCNS
66 Gerrard St. East
Toronto, Ont. M5B 1G3
Form L1206

D

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<div>(1) Registry <input type="checkbox"/> LAND TITLES <input type="checkbox"/></div> <div>(3) Property Identifier(s) Block Property Additional: See Schedule <input type="checkbox"/></div> <div>(4) Nature of Document CAUTION under Section 33(1) of the Provincial Land Tax Act</div> <div>(5) Consideration NONE Dollar \$</div> <div>(6) Description</div>	<div>(2) Page 1 of 1 pages</div>											
	<div>(7) This Document Contains: (a) Redescription New Easement Plan/Sketch <input type="checkbox"/> (b) Schedule for: Description <input type="checkbox"/> Additional Parties <input type="checkbox"/> Other <input type="checkbox"/></div>											
	<div>(8) This Document provides as follows: The taxes imposed by the <u>Provincial Land Tax Act</u> on the land described above are unpaid for a period of two years or more. Unless the total amount of tax, interest, penalties and costs due and payable under the Act is paid on or before the 30th day of November, the land and every interest therein will be liable to be forfeited to and to be vested in the Crown on the 1st day of December, Continued on Schedule <input type="checkbox"/></div>											
	<div>(9) This Document relates to instrument number(s) n/a</div>											
	<div>(10) Party(ies) (Set out Status or Interest) Name(s) Signature(s) Date of Signature Y M D PROVINCIAL LAND TAX COLLECTOR (CAUTIONER)</div>											
	<div>(11) Address for Service Ministry of Revenue, Motor Fuels and Tobacco Tax Branch, P.O. Box 625 33 King Street West, Oshawa, Ontario L1H 8H9</div>											
<div>(12) Party(ies) (Set out Status or Interest) Name(s) Signature(s) Date of Signature Y M D NAME(S) OF REGISTERED OWNER(S)</div>												
<div>(13) Address for Service n/a</div>												
<div>(14) Municipal Address of Property</div>	<div>(15) Document Prepared by: Ministry of Revenue Motor Fuels & Tobacco Tax Branch P.O. Box 625 33 King St. W. Oshawa, Ontario L1H 8H9</div>											
<div>FOR OFFICE USE ONLY</div>		<table border="1"><thead><tr><th colspan="2">Fees and Tax</th></tr></thead><tbody><tr><td>Registration Fee</td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td>Total</td><td></td></tr></tbody></table>	Fees and Tax		Registration Fee						Total	
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10174 (12/84)

PLANNING ACT, 1983

O. Reg. 413/86.

Zoning Areas—Geographic Township
of Gorham in the Territorial District
of Thunder Bay.

Made—July 10th, 1986.

Filed—July 15th, 1986.

ORDER MADE UNDER THE
PLANNING ACT, 1983ZONING AREAS—GEOGRAPHIC TOWNSHIP
OF GORHAM IN THE TERRITORIAL
DISTRICT OF THUNDER BAY

INTERPRETATION

1. In this Order,

“accessory”, when used to describe a use, building or structure, means a use, building or structure that is normally incidental or subordinate to the principal use, building or structure on the same lot;

“agricultural use” means a use of land, buildings or structures for the purpose of forestry or related research activities, field crops, fruit farming, market gardening, dairying, animal husbandry, poultry raising, beekeeping and such uses as are customarily and normally related to agriculture;

“body repair shop” means an establishment engaged primarily in the repairing or painting of vehicle bodies;

“commercial use” means the use of land, buildings or structures for the purpose of buying and selling commodities or supplying services;

“community hall” means a building or part thereof in which facilities are provided for meetings for civic, educational, political, recreational, religious or social purposes, and includes a banquet hall and a private club;

“day nursery” means premises used for the temporary care of six or more children who are not of common parentage, for a continuous period not exceeding twenty-four hours, where the children are under ten years of age or are under eighteen years of age and developmentally handicapped;

“derelict motor vehicle site” means a site used commercially for the storage of abandoned motor vehicles;

“dwelling unit” means one or more habitable rooms including a mobile home occupied or capable of being occupied as an independent and separate housekeeping establishment in which separate kitchen and sanitary facilities are provided for the exclusive use of the unit;

“extractive industrial use” means the use of land for the extraction of mineral aggregates including sand, gravel, shale, clay and bedrock suitable for the production of crushed stone, building stone, cement products and similar materials;

“front lot line” means the lot line that divides a lot from a road, right-of-way, Crown shoreline reserve or high-water mark of a river or lake, and,

(a) in the case of a corner lot, the shorter line that abuts a road, right-of-way, Crown shoreline reserve or high-water mark of a river or lake shall be the front lot line, and

(b) where a lot abuts both a road and the high-water mark of a river, lake or Crown shoreline reserve, the lot line abutting the high-water mark or Crown shoreline reserve shall be the front lot line;

“front yard” means a yard extending across the full width of the lot between the front lot line and the nearest main wall of the principal building or structure on the lot;

“garage” means a building accessory to a single dwelling or recreational dwelling used primarily for the storage of one or more vehicles but does not include a garage used for human habitation or commercial purposes;

“ground floor area” means the area of the lowest storey of a building or structure above grade, measured between the exterior faces of the exterior walls of the floor level of that storey;

“group home” means a dwelling unit in which three to ten unrelated residents, as well as staff or the receiving family, live as a single housekeeping unit under the supervision of the staff or receiving family which has been licensed or approved as a group home under provincial statutes;

“guest cabin” means a building without cooking and sanitary facilities that is accessory to a dwelling and used only for purposes of sleeping accommodation;

“height” means the vertical distance between the average elevation of the finished surface of the ground at the front of the building and the highest point of the roof surface;

“home industry” means a gainful occupation conducted in whole or in part in a building or buildings accessory to a single dwelling primarily by the residents and includes an animal hospital, or an electrical, woodworking, welding, plumbing, sheet metal, machine or body repair shop;

“home occupation” means any occupation for gain conducted entirely within a single dwelling;

"hotel" means an establishment containing at least four bedrooms available for the sleeping accommodation of the travelling public and includes a motel;

"industrial use" means the use of any land, building or structure for manufacturing, assembling, finishing, treating, altering, repairing, warehousing, storing, adapting or selling the goods, substance, article or thing manufactured and the storage of building and construction equipment and materials;

"lot" means a parcel of land,

(a) described in a deed or other document legally capable of conveying land, or

(b) shown as a lot or block on a registered plan of subdivision;

"lot coverage" means the percentage of the lot area covered by the ground floor area of all buildings and structures on a lot;

"lot frontage" means the horizontal distances between the side lot lines of a lot and, where the lot lines are not parallel, the lot frontage is the distance between the side lot lines measured on a line parallel to the front lot line and 7.5 metres distant therefrom;

"lot line" means a boundary of a lot,

"mobile home" means a dwelling unit that is designed to be made mobile and constructed or manufactured to provide a permanent residence for one or more persons but does not include a recreational vehicle, a travel trailer or tent trailer;

"mobile home park" means one parcel of land under single ownership that has not been subdivided under the *Planning Act, 1983* in which mobile homes are located and individual sites are made available on a rental or lease basis;

"mobile home site" means an area of land within a mobile home park that is intended to be occupied by one mobile home;

"parking space" means an area set aside for the parking of a vehicle, with access to a road or to a private lane that has access to a road;

"pipeline" means a pipe that is used for the transmission of a hydrocarbon and includes fittings, valves, controls, compressor stations, pressure-regulating stations and water stations;

"pit" means land from which unconsolidated aggregate may be excavated but does not include an excavation for a building or structure;

"private recreation camp" means an area of land used for private recreational uses such as hunting camps, fishing camps, summer camps and religious retreats;

"public building" means a building or structure owned or leased by a municipal corporation, the Province of Ontario or the Government of Canada in which government activities are carried out;

"public utility" means a water works or water supply system, sewage works, electrical power or energy generating transmission or distribution system, street lighting system, natural or artificial gas works or supply system or a telephone system and includes any lands, buildings or equipment required for the operation of the works or system;

"quarry" means land from which consolidated aggregate may be excavated but does not include an excavation for a building or structure;

"rear lot line" means the lot line opposite the front lot line;

"rear yard" means a yard extending across the full width of a lot between the rear lot line and the nearest main wall of the principal building on the lot;

"recreational dwelling" means a single dwelling used for recreation and not occupied as a permanent residence or home, but does not include a mobile home;

"recreational vehicle" means a motor vehicle designed to provide temporary living, sleeping or eating accommodation for one or more persons;

"road" means a public highway that is a principal means of access to abutting lots that is under the jurisdiction of the Province of Ontario or a local roads board or is a road within a registered plan of subdivision;

"side lot line" means a lot line other than a front or rear lot line;

"side yard" means a yard between the nearest main wall of the principal building or structure and the side lot line extending from the front lot line to the rear lot line;

"single dwelling" means a separate building or structure, including a mobile home, containing only one dwelling unit which is occupied as a permanent residence or home;

"trailer" means a vehicle constructed to be attached to a motor vehicle for the purpose of being drawn or propelled by the motor vehicle and capable of being used for temporary living, sleeping or eating accommodation, notwithstanding that the vehicle is jacked up or that its running gear is removed, but does not include a mobile home;

"waste disposal site" means land approved by the Ministry of the Environment upon, into or in which waste may be deposited or processed;

“wayside pit or quarry” means a temporary source of consolidated or unconsolidated aggregate opened by a public road authority, including a local roads board, for the purpose of a particular project of public road construction;

“workshop” means any premises used by more than two persons, including a co-operative or commune, for the purposes of gain or support;

“yard” means a space open from the ground to the sky, unoccupied except for such accessory buildings as are specifically permitted in the Order, on the lot on which a building is situated. O. Reg. 413/86, s. 1.

PART I

GENERAL

2. This Order applies to all the land in the geographic Township of Gorham in the Territorial District of Thunder Bay. O. Reg. 413/86, s. 2.

3. No land to which this Order applies shall hereafter be used and no building or structure shall hereafter be erected, located or used except in accordance with the terms of this Order, but nothing in this Order prevents the use of any land, building or structure for a purpose prohibited by this Order if such land, building or structure was lawfully used for such purpose on the day this Order comes into force. O. Reg. 413/86, s. 3.

4. For the purposes of this Order, all the land in the geographic Township of Gorham is divided into the zones listed in the following Table as shown on maps filed with the Plans Administration Branch, North and East, of the Ministry of Municipal Affairs at Toronto as numbers 137 and 138, both inclusive, the said zones being designated on the maps as set out in the Table:

TABLE

<i>Zone</i>	<i>Symbol on Map</i>
Rural	RU
Recreational	R
Institutional	I
General Commercial	CG
General Industrial	M1
Extractive Industrial	M2
Disposal Industrial	M3
Use Limitation	UL

O. Reg. 413/86, s. 4.

5.—(1) Accessory uses, buildings and structures are permitted in every zone.

(2) No building or structure except a boathouse, sauna, storage or tool shed, garage, dock, wharf, swimming pool, greenhouse, guest cabin, pit privy, barn or chicken coop may be erected, located or used as a building or structure accessory to a dwelling unit.

(3) Unless this Order provides otherwise, accessory buildings and structures shall not,

(a) be erected, located or used within one metre of a side or rear lot line or within eight metres of a front lot line;

(b) be used for permanent human habitation;

(c) have an aggregate floor area that exceeds 10 per cent of the lot area; and

(d) exceed five metres in height.

(4) One guest cabin having a gross floor area not exceeding thirty square metres may be erected or used on the same lot as a dwelling unit.

(5) An accessory building or structure may have a maximum height of twelve metres if it meets the front, side and rear yard requirements for the principal building in each zone.

(6) If a lot abuts navigable water, a boathouse, dock or wharf may be erected, located or used up to the portion of the lot line that abuts the water. O. Reg. 413/86, s. 5.

6. Nothing in this Order prevents,

(a) the reconstruction of any existing legal non-conforming building or structure that is damaged or destroyed by causes beyond the control of the owner if the dimensions of the original building or structure are not increased or its original use altered; and

(b) the strengthening or restoration to a safe condition of any building or structure. O. Reg. 413/86, s. 6.

7. If a building has been erected, located or used before the date this Order comes into force on a lot having less than,

(a) the minimum frontage or area; or

(b) the minimum front, side or rear yard,

required by this Order, the building may be extended, enlarged, repaired or renovated if there is no further reduction in any yard that is less than the minimum required by this Order and all other requirements of this Order are met. O. Reg. 413/86, s. 7.

8.—(1) If a lot with less than the minimum frontage or area required by this Order existed before the day this Order came into force, this Order does not pro-

hibit uses permitted in the relevant zone designation if all other requirements of this Order are met.

(2) Despite subsection (1), no building or structure shall be erected, located or used on a lot in the Recreational Zone unless the lot has,

(a) a lot frontage of at least forty-five metres; and

(b) a lot area of at least 4,000 square metres.
O. Reg. 413/86, s. 8.

9. No building or structure shall be erected, located or used on a lot that does not abut a road. O. Reg. 413/86, s. 9.

10. The height limitations of this Order do not apply to church spires, water tanks, flag poles, television or radio antenna, power transmission towers, fire lookout towers, ventilators, skylights, chimneys, grain elevators, barns, silos, windmills or solar collectors. O. Reg. 413/86, s. 10.

11. A tool shed, scaffold or other building or structure incidental to the construction of a building or structure may be erected, located or used until the construction has been completed or permanently discontinued. O. Reg. 413/86, s. 11.

12. If a home occupation or home industry is a permitted use,

(a) no external display or advertising is permitted except a sign having a total display area not exceeding one square metre;

(b) no more than one person who is not a resident of the single dwelling shall be employed full time; and

(c) not more than 33 per cent of the gross floor area of the single dwelling shall be used for the home occupation. O. Reg. 413/86, s. 12.

13. Unless this Order provides otherwise, not more than one dwelling unit is permitted on a lot. O. Reg. 413/86, s. 13.

14. Despite the yard and setback provisions of this Order, unenclosed porches, balconies, steps, attached greenhouses, patios, main eaves, sills, cornices, gutters, chimneys and canopies may project into any required yard a distance not exceeding two metres. O. Reg. 413/86, s. 14.

15. No building or structure shall be erected, located or used within thirty-two metres of the centre line of a provincial highway. O. Reg. 413/86, s. 15.

16. No building or structure shall be erected, located or used within ten metres of a pipeline right-of-way. O. Reg. 413/86, s. 16.

17. No dwelling shall be erected, located or used within ninety metres of the rear or side lot lines in areas of high or moderate aggregate potential as designated in Schedule B of the Official Plan of the geographic townships of Gorham and Ware. O. Reg. 413/86, s. 17.

18. No building or structure, except a boathouse, dock or wharf, shall be located within eighteen metres of a navigable body of water. O. Reg. 413/86, s. 18.

19. Public utilities are permitted in every zone and, except for telephone, telegraph, electric power or water lines or a pipeline that carries a hydro-carbon other than undiluted liquefied petroleum gas, are subject to the requirements set out in paragraphs 4 and 5 of section 30. O. Reg. 413/86, s. 19.

20.—(1) No building or structure listed in Column 1 shall be erected, located or used unless parking spaces for off-road vehicular parking are provided in accordance with the requirements set out in Column 2.

COLUMN 1	COLUMN 2
Single dwelling, or recreational dwelling	At least one parking space or one garage or carport for each dwelling unit.
Home occupation or home industry	At least one parking space for each 20 square metres of gross floor area devoted to the home occupation or home industry use.
Hotel, tavern or tourist home	At least one parking space for each guest room and one parking space for each 10 square metres of gross floor area devoted to public use.
Church, community hall, restaurant, meeting hall, theatre, private club or other place of assembly	At least one parking space for every five seats or 3 metres of bench space and, where there are not fixed seats, one parking space for every 10 square metres of gross floor area.
Office or public building	At least one parking space per 30 square metres of gross floor area.
Retail store or service shop	At least one parking space per 20 square metres of gross floor area.
Industrial establishment	At least one parking space per 100 square metres of gross floor area.
Campground	At least one parking space for each tent, tourist trailer or cabin.

(2) Every parking space, garage or carport required by subsection (1),

(a) shall be located on the same lot as the use, building or structure it is intended to serve; and

(b) shall have access to a road or to a private lane that has access to a road. O. Reg. 413/86, s. 20.

21.—(1) Wayside pits and quarries and buildings or structures accessory thereto on the same lot are permitted in every zone except the Recreational Zone.

(2) A wayside pit shall not be located within 120 metres of a lot line and thirty metres of a road. O. Reg. 413/86, s. 21.

PART II

RURAL ZONES

22. This Part applies to the Rural (RU) Zones. O. Reg. 413/86, s. 22.

23.—(1) Every use of land and every erection, location or use of buildings and structures is prohibited except,

- (a) agricultural uses;
- (b) public parks, playgrounds and picnic areas;
- (c) logging and lumber operations;
- (d) a single dwelling;
- (e) day nurseries; and
- (f) group homes.

(2) A single dwelling accessory to the uses permitted by clauses (1) (a), (b) and (c) is permitted.

(3) Single dwellings and accessory buildings may be used for a home occupation or home industry. O. Reg. 413/86, s. 23.

24.—(1) Requirements for uses, buildings and structures, including accessory buildings and structures, permitted by clauses 23 (1) (a), (b), (c) and (f) are as follows:

- 1. Minimum lot area 10 hectares
- 2. Minimum lot front-age 150 metres
- 3. Minimum distance of a building or structure from any lot line 15 metres

- 4. Minimum ground floor area for accessory single dwellings 70 square metres

- 5. Maximum height 12 metres

(2) Requirements for principal buildings and structures permitted by clauses 23 (1) (d) and (e) are as follows:

- 1. Minimum lot area 2 hectares
- 2. Minimum lot front-age 100 metres
- 3. Maximum lot cover-age 20 per cent
- 4. Minimum front yard 8 metres
- 5. Minimum rear yard 8 metres
- 6. Minimum side yards 5 metres
- 7. Minimum distance from any building or structure on another lot 10 metres
- 8. Maximum height 12 metres

(3) No building or structure intended to contain livestock or manure shall be erected, located or used within thirty metres of a lot line.

(4) A second dwelling unit is permitted within a single dwelling, excluding a mobile home, if not more than 25 per cent of the gross floor area shall be used for the second dwelling unit. O. Reg. 413/86, s. 24.

PART III

RECREATIONAL ZONES

25. This Part applies to the Recreational (R) Zones. O. Reg. 413/86, s. 25.

26. Every use of land and every erection, location or use of buildings or structures is prohibited except,

- (a) recreational dwellings;
- (b) single dwellings lawfully in existence immediately before the day this Order comes into force;
- (c) public parks, playgrounds or picnic areas;
- (d) conservation uses for the maintenance of areas of biological, cultural or historic significance; and
- (e) private recreation camps. O. Reg. 413/86, s. 26.

27.—(1) Requirements for principal buildings and structures are as follows:

- | | |
|-------------------------|---------------------|
| 1. Minimum lot area | 4,000 square metres |
| 2. Minimum lot frontage | 45 metres |
| 3. Maximum lot coverage | 10 per cent |
| 4. Minimum front yard | 15 metres |
| 5. Minimum side yards | 5 metres |
| 6. Minimum rear yard | 8 metres |
| 7. Maximum height | 9 metres |

(2) Despite paragraph 2 of subsection (1), the minimum lot frontage for public parks, playgrounds and picnic areas is thirty metres.

(3) Despite paragraph 4 of subsection (1), if the front lot line abuts a Crown shoreline reserve, the minimum front yard is two metres. O. Reg. 413/86, s. 27.

PART IV

INSTITUTIONAL ZONES

28. This Part applies to the Institutional (I) Zones. O. Reg. 413/86, s. 28.

29.—(1) Every use of land and every erection, location or use of buildings and structures is prohibited except,

- (a) schools;
- (b) community halls;
- (c) curling rinks;
- (d) skating rinks;
- (e) post offices;
- (f) churches;
- (g) fire halls;
- (h) libraries;
- (i) cemeteries; and
- (j) day nurseries.

(2) A dwelling unit accessory to a use permitted by subsection (1) may be erected, located or used,

- (a) in the principal building or structure; or
- (b) in a separate building or structure,

if the requirements of paragraphs 1, 2 and 3 of subsection 24 (2) are met. O. Reg. 413/86, s. 29.

30. Requirements for principal buildings and structures are as follows:

- | | |
|---|---------------------|
| 1. Minimum lot area | 4,000 square metres |
| 2. Minimum lot frontage | 30 metres |
| 3. Maximum lot coverage | 30 per cent |
| 4. Minimum front and rear yards | 8 metres |
| 5. Minimum side yards | 6 metres |
| 6. Maximum height of main building or structure | 12 metres |
| 7. Minimum floor area of main building or structure | 60 square metres |

O. Reg. 413/86, s. 30.

PART V

GENERAL COMMERCIAL ZONES

31. This Part applies to the General Commercial (CG) Zones. O. Reg. 413/86, s. 31.

32.—(1) Every use of land and every erection, location or use of buildings and structures is prohibited except,

- (a) retail stores;
- (b) repair shops, including body repair shops;
- (c) business and professional offices;
- (d) hotels;
- (e) restaurants;
- (f) automobile service stations;
- (g) building supply and sale outlets;
- (h) vehicle sales and service establishments;
- (i) entertainment and recreation facilities; and
- (j) workshops.

(2) A dwelling unit accessory to a use permitted by subsection (1) may be erected, located or used,

(a) in the principal building or structure, except in an automobile service station, vehicle sales and service establishment, or a workshop; or

(b) in a separate building or structure,

if the requirements of paragraphs 1, 2 and 3 of subsection 24 (2) are met. O. Reg. 413/86, s. 32.

33.—(1) Requirements for principal buildings and structures permitted by subsection 32 (1) are as follows:

1. Minimum lot area	4,000 square metres
2. Minimum lot frontage	60 metres
3. Maximum lot coverage	40 per cent
4. Minimum front yard	8 metres
5. Minimum rear yard	9 metres
6. Minimum side yards	6 metres
7. Maximum height	9 metres

(2) The gross floor area of a building or structure containing a retail store, business or professional office or workshop shall not exceed 700 square metres.

(3) Gasoline pumps may be located in the front yard but not within six metres of the front lot line.

(4) Where a lot on which the principal use is a commercial use abuts a lot on which the principal use is a residential use, outside storage is prohibited on the commercial use lot within thirty metres of the lot line. O. Reg. 413/86, s. 33.

PART VI

GENERAL INDUSTRIAL ZONES

34. This Part applies to the General Industrial (M1) Zones. O. Reg. 413/86, s. 34.

35.—(1) Every use of land and every erection, location or use of buildings and structures is prohibited except,

- (a) manufacturing or processing establishment;
- (b) warehousing;
- (c) lumber yards;
- (d) establishments for the repair and servicing of agricultural equipment;
- (e) asphalt and ready-mix concrete plants;
- (f) stone crushing plants;

(g) aggregate batching plants; and

(h) sawmills.

(2) A dwelling unit accessory to a use permitted by subsection (1) may be erected, located or used,

(a) in the same building or structure; or

(b) in a separate building or structure,

if the requirements of paragraphs 1, 2 and 3 of subsection 24 (2) are met.

(3) A retail or wholesale store or business office accessory to a use, building or structure permitted by subsection (1) is permitted. O. Reg. 413/86, s. 35.

36.—(1) Requirements for principal buildings and structures are as follows:

1. Minimum lot area	2 hectares
2. Minimum lot frontage	100 metres
3. Maximum lot coverage	50 per cent
4. Minimum front yard	18 metres
5. Minimum rear yard	18 metres
6. Minimum side yards	9 metres
7. Maximum height	12 metres

(2) Despite paragraph 6 of subsection (1), no building or structure shall be located in a side yard within twelve metres of a road.

(3) If a lot on which the principal use is an industrial use abuts a lot on which the principal use is a residential use, outside storage is prohibited on the industrial lot within thirty metres of a lot line. O. Reg. 413/86, s. 36.

PART VII

EXTRACTIVE INDUSTRIAL ZONES

37. This Part applies to the Extractive Industrial (M2) Zones. O. Reg. 413/86, s. 37.

38.—(1) Every use of land and every erection, location or use of buildings or structures is prohibited except,

- (a) pits and quarries; and
- (b) aggregate storage areas.

(2) No person shall establish a pit or quarry within,

- (a) thirty metres of a lot line;

(b) 120 metres of a lot line of a lot used for residential, recreational, institutional or commercial purposes; and

(c) thirty metres of a road. O. Reg. 413/86, s. 38.

39. Requirements for buildings and structures, including accessory buildings and structures, are as follows:

1. Minimum distance from the front lot line 45 metres
2. Minimum distance from the side lot lines 30 metres
3. Minimum distance from the rear lot line 30 metres
4. Maximum height 12 metres
5. Minimum distance from a residential use lot 60 metres

O. Reg. 413/86, s. 39.

PART VIII

DISPOSAL INDUSTRIAL ZONES

40. This Part applies to the Disposal Industrial (M3) Zones. O. Reg. 413/86, s. 40.

41. Every use of land and every erection, location or use of buildings or structures is prohibited except,

- (a) waste disposal sites; and
- (b) derelict motor vehicles sites. O. Reg. 413/86, s. 41.

42.—(1) No waste disposal site shall be located,

- (a) within 500 metres of a dwelling unit;
- (b) within 185 metres of a road;
- (c) on land covered by water or in any area subject to flooding; or
- (d) within thirty metres of a watercourse, lake or pond.

(2) Requirements for accessory buildings and structures are as follows:

1. Minimum lot frontage 45 metres
2. Minimum distance from any lot line 15 metres

3. Maximum lot coverage 5 per cent

4. Maximum height 12 metres

O. Reg. 413/86, s. 42.

43. The following land shall be used only for a waste disposal site for the disposal of wood waste products:

That parcel of land in the geographic Township of Gorham in the Territorial District of Thunder Bay, being composed of that part of the south half of Lot 16 in Concession II, described as part of Parcel 3487 in the Land Registry Office for the Land Titles Division of Thunder Bay (No. 55), composed of approximately 12.4 hectares, more particularly described as follows:

Beginning at a point in the westerly limit of the said Lot 16 immediately south of the Ontario Hydro right-of-way;

Thence south along the westerly lot line a distance of 322.9 metres;

Thence east in a line running parallel to the south boundary of the said Lot a distance of 490.7 metres;

Thence north in a line running parallel to the east limit of the said Lot a distance of 182.88 metres to the south limit of the Ontario Hydro right-of-way;

Thence in a general northwesterly direction in a line bordering the Ontario Hydro right-of-way to the point of commencement. O. Reg. 413/86, s. 43.

44. No waste disposal or derelict motor vehicle site may be used for the disposal of toxic industrial or nuclear wastes. O. Reg. 413/86, s. 44.

PART IX

USE LIMITATION ZONES

45. This Part applies to the Use Limitation (UL) Zones. O. Reg. 413/86, s. 45.

46.—(1) Every use of land and every erection, location or use of buildings and structures is prohibited except,

- (a) the protection and management of,
 - (i) lands subject to flooding or high water table, and
 - (ii) steep slopes subject to erosion;
- (b) playgrounds and parks;
- (c) agricultural uses, excluding buildings and structures;

(d) conservation uses for the maintenance of areas of biological, cultural or historical significance;

(e) horticultural uses; and

(f) wildlife areas.

(2) Subsection (1) does not prevent structures or measures taken to stabilize lands subject to flooding or erosion. O. Reg. 413/86, s. 46.

PART X

47. Notwithstanding this Order, the lands referred to in sections 19, 22, 24, 26 to 32, 38, 39, 43, 44, 46,

47, 49, 52 and 53 of Ontario Regulation 109/75 may continue to be used for the purposes set out therein if the requirements set out therein are met. O. Reg. 413/86, s. 47.

48. Ontario Regulations 109/75, 506/75, 626/75, 987/75, 83/76, 338/76, 713/76, 322/80, 724/80, 947/80, 1059/80, 1123/80, 288/82, 664/82, 690/82, 796/82, 362/83, 576/83, 6/84, 84/84, 167/84, 228/84, 456/84, 502/84, 541/84, 589/84, 590/84, 607/84, 623/84, 644/84, 645/84, 745/84, 758/84, 759/84, 760/84, 373/85, 443/85, 447/85, 481/85, 530/85, 658/85, 63/86, 64/86 and 65/86 are revoked.

Schedule 1

RURAL ZONES—EXEMPTIONS

1.—(1) The land in the geographic Township of Gorham in the Territorial District of Thunder Bay described in each of the paragraphs of subsection (2) may be used for the location and use thereon of a mobile home park, subject to the maximum limitations set out in the paragraphs and subject to the following requirements:

1. One mobile home and accessory buildings and structures may be located and used on each mobile home site in the mobile home parks.
2. One single dwelling and accessory buildings and structures are permitted on the same lot as the mobile home park.
- (2) This section applies to the following land:

- | | |
|---|-------------------------------|
| 1. Part of Lot 5 in Concession I more particularly described as Parcel 7503 in the Land Registry Office for the Land Titles Division of Thunder Bay (No. 55) and that part of Lot 5 in Concession II more particularly described as Parcel 4969 in the Land Registry Office for the Land Titles Division of Thunder Bay (No. 55). | Maximum of
66 mobile homes |
| 2. The south half of Lot 16 in Concession I. | Maximum of
27 mobile homes |
| 3. Part of Mining Claim 47-E being Part 3 as shown on a Reference Plan deposited in the Land Registry Office for the Land Titles Division of Thunder Bay (No. 55) as Number PAR 40 and being Parcel 13484 for the Thunder Bay Freehold. | Maximum of
10 mobile homes |
| 4. Part of the northeast quarter of Location N-8 more particularly described as parts 1 and 2 on a Reference Plan deposited in the Land Registry Office for the Registry Division of Thunder Bay (No. 55) as Number 55R-1585, being Parcel 11635 and part of Parcel 16121, Thunder Bay Freehold. | Maximum of
28 mobile homes |
| 5. Part of Lot 1 in Concession II more particularly described as Part 1 on a Reference Plan deposited in the Land Registry Office for the Registry Division of Thunder Bay (No. 55) as Number 55R-1292, Thunder Bay Freehold. | Maximum of
20 mobile homes |

O. Reg. 413/86, Sched. 1.

BERNARD GRANDMAÎTRE
Minister of Municipal Affairs

Dated at Toronto, this 10th day of July, 1986.

PLANNING ACT, 1983

O. Reg. 414/86.

Zoning Areas—Geographic Township
of Ware in the Territorial District of
Thunder Bay.

Made—July 10th, 1986.

Filed—July 15th, 1986.

ORDER MADE UNDER THE
PLANNING ACT, 1983ZONING AREAS—GEOGRAPHIC TOWNSHIP
OF WARE IN THE TERRITORIAL DISTRICT
OF THUNDER BAY

INTERPRETATION

1. In this Order,

“accessory”, when used to describe a use, building or structure, means a use, building or structure that is normally incidental or subordinate to the principal use, building or structure on the same lot;

“agricultural use” means a use of land, buildings or structures for the purpose of forestry or related research activities, field crops, fruit farming, market gardening, dairying, animal husbandry, poultry raising, beekeeping and such uses as are customarily and normally related to agriculture;

“body repair shop” means an establishment engaged primarily in the repairing or painting of vehicle bodies;

“commercial use” means the use of land, buildings or structures for the purpose of buying and selling commodities or supplying services;

“community hall” means a building or part thereof in which facilities are provided for meetings for civic, educational, political, recreational, religious or social purposes, and includes a banquet hall and a private club;

“day nursery” means premises used for the temporary care of six or more children who are not of common parentage, for a continuous period not exceeding twenty-four hours, where the children are under ten years of age or are under eighteen years of age and developmentally handicapped;

“derelict motor vehicle site” means a site used commercially for the storage of abandoned motor vehicles;

“dwelling unit” means one or more habitable rooms including a mobile home occupied or capable of being occupied as an independent and separate housekeeping establishment in which separate kitchen and sanitary facilities are provided for the exclusive use of the unit;

“extractive industrial use” means the use of land for the extraction of mineral aggregates including sand, gravel, shale, clay and bedrock suitable for the production of crushed stone, building stone, cement products and similar materials;

“front lot line” means the lot line that divides a lot from a road, right-of-way, Crown shoreline reserve or high-water mark of a river or lake, and,

(a) in the case of a corner lot, the shorter line that abuts a road, right-of-way, Crown shoreline reserve or high-water mark of a river or lake shall be the front lot line, and

(b) where a lot abuts both a road and the high-water mark of a river, lake or Crown shoreline reserve, the lot line abutting the high-water mark or Crown shoreline reserve shall be the front lot line;

“front yard” means a yard extending across the full width of the lot between the front lot line and the nearest main wall of the principal building or structure on the lot;

“garage” means a building accessory to a single dwelling or recreational dwelling used primarily for the storage of one or more vehicles but does not include a garage used for human habitation or commercial purposes;

“ground floor area” means the area of the lowest storey of a building or structure above grade, measured between the exterior faces of the exterior walls of the floor level of that storey;

“group home” means a dwelling unit in which three to ten unrelated residents, as well as staff or the receiving family, live as a single housekeeping unit under the supervision of the staff or receiving family which has been licensed or approved as a group home under provincial statutes;

“guest cabin” means a building without cooking and sanitary facilities that is accessory to a dwelling and used only for purposes of sleeping accommodation;

“height” means the vertical distance between the average elevation of the finished surface of the ground at the front of the building and the highest point of the roof surface;

“home industry” means a gainful occupation conducted in whole or in part in a building or buildings accessory to a single dwelling primarily by the residents and includes an animal hospital, or an electrical, woodworking, welding, plumbing, sheet metal, machine or body repair shop;

“home occupation” means any occupation for gain conducted entirely within a single dwelling.

"hotel" means an establishment containing at least four bedrooms available for the sleeping accommodation of the travelling public and includes a motel;

"industrial use" means the use of any land, building or structure for manufacturing, assembling, finishing, treating, altering, repairing, warehousing, storing, adapting or selling the goods, substance, article or thing manufactured and the storage of building and construction equipment and materials;

"lot" means a parcel of land,

(a) described in a deed or other document legally capable of conveying land, or

(b) shown as a lot or block on a registered plan of subdivision;

"lot coverage" means the percentage of the lot area covered by the ground floor area of all buildings and structures on a lot;

"lot frontage" means the horizontal distances between the side lot lines of a lot and, where the lot lines are not parallel, the lot frontage is the distance between the side lot lines measured on a line parallel to the front lot line and 7.5 metres distant therefrom;

"lot line" means a boundary of a lot;

"mobile home" means a dwelling unit that is designed to be made mobile and constructed or manufactured to provide a permanent residence for one or more persons but does not include a recreational vehicle, a travel trailer or tent trailer;

"parking space" means an area set aside for the parking of a vehicle, with access to a road or to a private lane that has access to a road;

"pipeline" means a pipe that is used for the transmission of a hydrocarbon and includes fittings, valves, controls, compressor stations, pressure-regulating stations and water stations;

"pit" means land from which unconsolidated aggregate may be excavated but does not include an excavation for a building or structure;

"private recreation camp" means an area of land used for private recreational uses such as hunting camps, fishing camps, summer camps and religious retreats;

"public building" means a building or structure owned or leased by a municipal corporation, the Province of Ontario or the Government of Canada in which government activities are carried out;

"public utility" means a water works or water supply system, sewage works, electrical power or energy generating transmission or distribution system,

street lighting system, natural or artificial gas works or supply system or a telephone system and includes any lands, buildings or equipment required for the operation of the works or system;

"quarry" means land from which consolidated aggregate may be excavated but does not include an excavation for a building or structure;

"rear lot line" means the lot line opposite the front lot line;

"rear yard" means a yard extending across the full width of a lot between the rear lot line and the nearest main wall of the principal building on the lot;

"recreational dwelling" means a single dwelling used for recreation and not occupied as a permanent residence or home, but does not include a mobile home;

"recreational vehicle" means a motor vehicle designed to provide temporary living, sleeping or eating accommodation for one or more persons;

"road" means a public highway that is a principal means of access to abutting lots that is under the jurisdiction of the Province of Ontario or a local roads board or is a road within a registered plan of subdivision;

"side lot line" means a lot line other than a front or rear lot line;

"side yard" means a yard between the nearest main wall of the principal building or structure and the side lot line extending from the front lot line to the rear lot line;

"single dwelling" means a separate building or structure, including a mobile home, containing only one dwelling unit which is occupied as a permanent residence or home;

"trailer" means a vehicle constructed to be attached to a motor vehicle for the purpose of being drawn or propelled by the motor vehicle and capable of being used for temporary living, sleeping or eating accommodation, notwithstanding that the vehicle is jacked up or that its running gear is removed, but does not include a mobile home;

"waste disposal site" means land approved by the Ministry of the Environment upon, into or in which waste may be deposited or processed;

"wayside pit or quarry" means a temporary source of consolidated or unconsolidated aggregate opened by a public road authority, including a local roads board, for the purpose of a particular project of public road construction;

"workshop" means any premises used by more than two persons, including a co-operative or commune, for the purposes of gain or support;

"yard" means a space open from the ground to the sky, unoccupied except for such accessory buildings as are specifically permitted in the Order, on the lot on which a building is situated. O. Reg. 414/86, s. 1.

PART I

GENERAL

2. This Order applies to all the land in the geographic Township of Ware in the Territorial District of Thunder Bay. O. Reg. 414/86, s. 2.

3. No land to which this Order applies shall hereafter be used and no building or structure shall hereafter be erected, located or used except in accordance with the terms of this Order, but nothing in this Order prevents the use of any land, building or structure for a purpose prohibited by this Order if such land, building or structure was lawfully used for such purpose on the day this Order comes into force. O. Reg. 414/86, s. 3.

4. For the purposes of this Order, all the land in the geographic Township of Ware is divided into the zones listed in the following Table as shown on maps filed with the Plans Administration Branch, North and East, of the Ministry of Municipal Affairs at Toronto as numbers 139 and 140, both inclusive, the said zones being designated on the maps as set out in the Table:

TABLE

<i>Zone</i>	<i>Symbol on Map</i>
Rural	RU
Recreational	R
Institutional	I
General Commercial	CG
General Industrial	M1
Extractive Industrial	M2
Disposal Industrial	M3
Use Limitation	UL

O. Reg. 414/86, s. 4.

5.—(1) Accessory uses, buildings and structures are permitted in every zone.

(2) No building or structure except a boathouse, sauna, storage or tool shed, garage, dock, wharf, swimming pool, greenhouse, guest cabin, pit privy, barn or chicken coop may be erected, located or used as a building or structure accessory to a dwelling unit.

(3) Unless this Order provides otherwise, accessory buildings and structures shall not,

- (a) be erected, located or used within one metre of a side or rear lot line or within eight metres of a front lot line;
- (b) be used for permanent human habitation;
- (c) have an aggregate floor area that exceeds 10 per cent of the lot area; and
- (d) exceed five metres in height.

(4) One guest cabin having a gross floor area not exceeding thirty square metres may be erected or used on the same lot as a dwelling unit.

(5) An accessory building or structure may have a maximum height of twelve metres if it meets the front, side and rear yard requirements for the principal building in each zone.

(6) If a lot abuts navigable water, a boathouse, dock or wharf may be erected, located or used up to the portion of the lot line that abuts the water. O. Reg. 414/86, s. 5.

6. Nothing in this Order prevents,

- (a) the reconstruction of any existing legal non-conforming building or structure that is damaged or destroyed by causes beyond the control of the owner if the dimensions of the original building or structure are not increased or its original use altered; and
- (b) the strengthening or restoration to a safe condition of any building or structure. O. Reg. 414/86, s. 6.

7. If a building has been erected, located or used before the date this Order comes into force on a lot having less than,

- (a) the minimum frontage or area; or
- (b) the minimum front, side or rear yard,

required by this Order, the building may be extended, enlarged, repaired or renovated if there is no further reduction in any yard that is less than the minimum required by this Order and all other requirements of this Order are met. O. Reg. 414/86, s. 7.

8.—(1) If a lot with less than the minimum frontage or area required by this Order existed before the day this Order came into force, this Order does not prohibit uses permitted in the relevant zone designation if all other requirements of this Order are met.

(2) Despite subsection (1), no building or structure shall be erected, located or used on a lot in the Recreational Zone unless the lot has,

(a) a lot frontage of at least forty-five metres; and

(b) a lot area of at least 4,000 square metres.
O. Reg. 414/86, s. 8.

9. No building or structure shall be erected, located or used on a lot that does not abut a road. O. Reg. 414/86, s. 9.

10. The height limitations of this Order do not apply to church spires, water tanks, flag poles, television or radio antenna, power transmission towers, fire lookout towers, ventilators, skylights, chimneys, grain elevators, barns, silos, windmills or solar collectors. O. Reg. 414/86, s. 10.

11. A tool shed, scaffold or other building or structure incidental to the construction of a building or structure may be erected, located or used until the construction has been completed or permanently discontinued. O. Reg. 414/86, s. 11.

12. If a home occupation or home industry is a permitted use,

(a) no external display or advertising is permitted except a sign having a total display area not exceeding one square metre;

(b) no more than one person who is not a resident of the single dwelling shall be employed full time; and

(c) not more than 33 per cent of the gross floor area of the single dwelling shall be used for the home occupation. O. Reg. 414/86, s. 12.

13. Unless this Order provides otherwise, not more than one dwelling unit is permitted on a lot. O. Reg. 414/86, s. 13.

14. Despite the yard and setback provisions of this Order, unenclosed porches, balconies, steps, attached greenhouses, patios, main eaves, sills, cornices, gutters, chimneys and canopies may project into any required yard a distance not exceeding two metres. O. Reg. 414/86, s. 14.

15. No building or structure shall be erected, located or used within thirty-two metres of the centre line of a provincial highway. O. Reg. 414/86, s. 15.

16. No building or structure shall be erected, located or used within ten metres of a pipeline right-of-way. O. Reg. 414/86, s. 16.

17. No dwelling shall be erected, located or used within ninety metres of the rear or side lot lines in areas of high or moderate aggregate potential as designated in Schedule B of the Official Plan of the geographic townships of Gorham and Ware. O. Reg. 414/86, s. 17.

18. No building or structure, except a boathouse, dock or wharf, shall be located within eighteen metres of a navigable body of water. O. Reg. 414/86, s. 18.

19. Public utilities are permitted in every zone and, except for telephone, telegraph, electric power or water lines or a pipeline that carries a hydro-carbon other than undiluted liquefied petroleum gas, are subject to the requirements set out in paragraphs 4 and 5 of section 30. O. Reg. 414/86, s. 19.

20.—(1) No building or structure listed in Column 1 shall be erected, located or used unless parking spaces for off-road vehicular parking are provided in accordance with the requirements set out in Column 2.

COLUMN 1	COLUMN 2
Single dwelling, or recreational dwelling	At least one parking space or one garage or carport for each dwelling unit.
Home occupation or home industry	At least one parking space for each 20 square metres of gross floor area devoted to the home occupation or home industry use.
Hotel, tavern or tourist home	At least one parking space for each guest room and one parking space for each 10 square metres of gross floor area devoted to public use.
Church, community hall, restaurant, meeting hall, theatre, private club or other place of assembly	At least one parking space for every five seats or 3 metres of bench space and, where there are not fixed seats, one parking space for every 10 square metres of gross floor area.
Office or public building	At least one parking space per 30 square metres of gross floor area.
Retail store or service shop	At least one parking space per 20 square metres of gross floor area.
Industrial establishment	At least one parking space per 100 square metres of gross floor area.
Campground	At least one parking space for each tent, tourist trailer or cabin.

(2) Every parking space, garage or carport required by subsection (1),

(a) shall be located on the same lot as the use, building or structure it is intended to serve; and

- (b) shall have access to a road or to a private lane that has access to a road. O. Reg. 414/86, s. 20.

21.—(1) Wayside pits and quarries and buildings or structures accessory thereto on the same lot are permitted in every zone except the Recreational Zone.

(2) A wayside pit shall not be located within 120 metres of a lot line and thirty metres of a road. O. Reg. 414/86, s. 21.

PART II

RURAL ZONES

22. This Part applies to the Rural (RU) Zones. O. Reg. 414/86, s. 22.

23.—(1) Every use of land and every erection, location or use of buildings and structures is prohibited except,

- (a) agricultural uses;
- (b) public parks, playgrounds and picnic areas;
- (c) logging and lumber operations;
- (d) a single dwelling;
- (e) day nurseries; and
- (f) group homes.

(2) A single dwelling accessory to the uses permitted by clauses (1) (a), (b) and (c) is permitted.

(3) Single dwellings and accessory buildings may be used for a home occupation or home industry. O. Reg. 414/86, s. 23.

24.—(1) Requirements for uses, buildings and structures, including accessory buildings and structures, permitted by clauses 23 (1) (a), (b), (c) and (f) are as follows:

- | | |
|--|------------------|
| 1. Minimum lot area | 10 hectares |
| 2. Minimum lot frontage | 150 metres |
| 3. Minimum distance of a building or structure from any lot line | 15 metres |
| 4. Minimum ground floor area for accessory single dwellings | 70 square metres |
| 5. Maximum height | 12 metres |

(2) Requirements for principal buildings and structures permitted by clauses 23 (1) (d) and (e) are as follows:

- | | |
|---|-------------|
| 1. Minimum lot area | 2 hectares |
| 2. Minimum lot frontage | 100 metres |
| 3. Maximum lot coverage | 20 per cent |
| 4. Minimum front yard | 8 metres |
| 5. Minimum rear yard | 8 metres |
| 6. Minimum side yards | 5 metres |
| 7. Minimum distance from any building or structure on another lot | 10 metres |
| 8. Maximum height | 12 metres |

(3) No building or structure intended to contain livestock or manure shall be erected, located or used within thirty metres of a lot line.

(4) A second dwelling unit is permitted within a single dwelling, excluding a mobile home, if not more than 25 per cent of the gross floor area shall be used for the second dwelling unit. O. Reg. 414/86, s. 24.

PART III

RECREATIONAL ZONES

25. This Part applies to the Recreational (R) Zones. O. Reg. 414/86, s. 25.

26. Every use of land and every erection, location or use of buildings or structures is prohibited except,

- (a) recreational dwellings;
- (b) single dwellings lawfully in existence immediately before the day this Order comes into force;
- (c) public parks, playgrounds or picnic areas;
- (d) conservation uses for the maintenance of areas of biological, cultural or historic significance; and
- (e) private recreation camps. O. Reg. 414/86, s. 26.

27.—(1) Requirements for principal buildings and structures are as follows:

- | | |
|-------------------------|---------------------|
| 1. Minimum lot area | 4,000 square metres |
| 2. Minimum lot frontage | 45 metres |
| 3. Maximum lot coverage | 10 per cent |

- | | |
|-----------------------|-----------|
| 4. Minimum front yard | 15 metres |
| 5. Minimum side yards | 5 metres |
| 6. Minimum rear yard | 8 metres |
| 7. Maximum height | 9 metres |

(2) Despite paragraph 2 of subsection (1), the minimum lot frontage for public parks, playgrounds and picnic areas is thirty metres.

(3) Despite paragraph 4 of subsection (1), if the front lot line abuts a Crown shoreline reserve, the minimum front yard is two metres. O. Reg. 414/86, s. 27.

PART IV

INSTITUTIONAL ZONES

28. This Part applies to the Institutional (I) Zones. O. Reg. 414/86, s. 28.

29.—(1) Every use of land and every erection, location or use of buildings and structures is prohibited except,

- (a) schools;
- (b) community halls;
- (c) curling rinks;
- (d) skating rinks;
- (e) post offices;
- (f) churches;
- (g) fire halls;
- (h) libraries;
- (i) cemeteries; and
- (j) day nurseries.

(2) A dwelling unit accessory to a use permitted by subsection (1) may be erected, located or used,

- (a) in the principal building or structure; or
- (b) in a separate building or structure,

if the requirements of paragraphs 1, 2 and 3 of subsection 24 (2) are met. O. Reg. 414/86, s. 29.

30. Requirements for principal buildings and structures are as follows:

- | | |
|-------------------------|---------------------|
| 1. Minimum lot area | 4,000 square metres |
| 2. Minimum lot frontage | 30 metres |

- | | |
|-------------------------|-------------|
| 3. Maximum lot coverage | 30 per cent |
|-------------------------|-------------|

- | | |
|---------------------------------|----------|
| 4. Minimum front and rear yards | 8 metres |
|---------------------------------|----------|

- | | |
|-----------------------|----------|
| 5. Minimum side yards | 6 metres |
|-----------------------|----------|

- | | |
|---|-----------|
| 6. Maximum height of main building or structure | 12 metres |
|---|-----------|

- | | |
|---|------------------|
| 7. Minimum floor area of main building or structure | 60 square metres |
|---|------------------|

O. Reg. 414/86, s. 30.

PART V

GENERAL COMMERCIAL ZONES

31. This Part applies to the General Commercial (CG) Zones. O. Reg. 414/86, s. 31.

32.—(1) Every use of land and every erection, location or use of buildings and structures is prohibited except,

- (a) retail stores;
- (b) repair shops, including body repair shops;
- (c) business and professional offices;
- (d) hotels;
- (e) restaurants;
- (f) automobile service stations;
- (g) building supply and sale outlets;
- (h) vehicle sales and service establishments;
- (i) entertainment and recreation facilities; and
- (j) workshops.

(2) A dwelling unit accessory to a use permitted by subsection (1) may be erected, located or used,

- (a) in the principal building or structure, except in an automobile service station, vehicle sales and service establishment or a workshop; or
- (b) in a separate building or structure,

if the requirements of paragraphs 1, 2 and 3 of subsection 24 (2) are met. O. Reg. 414/86, s. 32.

33.—(1) Requirements for principal buildings and structures permitted by subsection 32 (1) are as follows:

- | | |
|--------------------------|---------------------|
| 1. Minimum lot area | 4,000 square metres |
| 2. Minimum lot front-age | 60 metres |
| 3. Maximum lot cover-age | 40 per cent |
| 4. Minimum front yard | 8 metres |
| 5. Minimum rear yard | 9 metres |
| 6. Minimum side yards | 6 metres |
| 7. Maximum height | 9 metres |

(2) The gross floor area of a building or structure containing a retail store, business or professional office or workshop shall not exceed 700 square metres.

(3) Gasoline pumps may be located in the front yard but not within six metres of the front lot line.

(4) Where a lot on which the principal use is a commercial use abuts a lot on which the principal use is a residential use, outside storage is prohibited on the commercial use lot within thirty metres of the lot line. O. Reg. 414/86, s. 33.

PART VI

GENERAL INDUSTRIAL ZONES

34. This Part applies to the General Industrial (M1) Zones. O. Reg. 414/86, s. 34.

35.—(1) Every use of land and every erection, location or use of buildings and structures is prohibited except,

- (a) manufacturing or processing establishment;
- (b) warehousing;
- (c) lumber yards;
- (d) establishments for the repair and servicing of agricultural equipment;
- (e) asphalt and ready-mix concrete plants;
- (f) stone crushing plants;
- (g) aggregate batching plants; and
- (h) sawmills.

(2) A dwelling unit accessory to a use permitted by subsection (1) may be erected, located or used,

- (a) in the same building or structure; or
- (b) in a separate building or structure,

if the requirements of paragraphs 1, 2 and 3 of subsection 24 (2) are met.

(3) A retail or wholesale store or business office accessory to a use, building or structure permitted by subsection (1) is permitted. O. Reg. 414/86, s. 35.

36.—(1) Requirements for principal buildings and structures are as follows:

- | | |
|--------------------------|-------------|
| 1. Minimum lot area | 2 hectares |
| 2. Minimum lot front-age | 100 metres |
| 3. Maximum lot cover-age | 50 per cent |
| 4. Minimum front yard | 18 metres |
| 5. Minimum rear yard | 18 metres |
| 6. Minimum side yards | 9 metres |
| 7. Maximum height | 12 metres |

(2) Despite paragraph 6 of subsection (1), no building or structure shall be located in a side yard within twelve metres of a road.

(3) If a lot on which the principal use is an industrial use abuts a lot on which the principal use is a residential use, outside storage is prohibited on the industrial lot within thirty metres of a lot line. O. Reg. 414/86, s. 36.

PART VII

EXTRACTIVE INDUSTRIAL ZONES

37. This Part applies to the Extractive Industrial (M2) Zones. O. Reg. 414/86, s. 37.

38.—(1) Every use of land and every erection, location or use of buildings or structures is prohibited except,

- (a) pits and quarries; and
 - (b) aggregate storage areas.
- (2) No person shall establish a pit or quarry within,
- (a) thirty metres of a lot line;
 - (b) 120 metres of a lot line of a lot used for residential, recreational, institutional or commercial purposes; and
 - (c) thirty metres of a road. O. Reg. 414/86, s. 38.

39. Requirements for buildings and structures, including accessory buildings and structures, are as follows:

1. Minimum distance
from the front lot line 45 metres
2. Minimum distance
from the side lot lines 30 metres
3. Minimum distance
from the rear lot line 30 metres
4. Maximum height 12 metres
5. Minimum distance
from a residential use
lot 60 metres

O. Reg. 414/86, s. 39.

PART VIII

DISPOSAL INDUSTRIAL ZONES

40. This Part applies to the Disposal Industrial (M3) Zones. O. Reg. 414/86, s. 40.

41. Every use of land and every erection, location or use of buildings or structures is prohibited except,

(a) waste disposal sites; and

(b) derelict motor vehicles sites. O. Reg. 414/86, s. 41.

42.—(1) No waste disposal site shall be located,

(a) within 500 metres of a dwelling unit;

(b) within 185 metres of a road;

(c) on land covered by water or in any area subject to flooding; or

(d) within thirty metres of a watercourse, lake or pond.

(2) Requirements for accessory buildings and structures are as follows:

1. Minimum lot front-
age 45 metres
2. Minimum distance
from any lot line 15 metres
3. Maximum lot cover-
age 5 per cent
4. Maximum height 12 metres

O. Reg. 414/86, s. 42.

43. No waste disposal or derelict motor vehicle site may be used for the disposal of toxic industrial or nuclear wastes. O. Reg. 414/86, s. 43.

PART IX

USE LIMITATION ZONES

44. This Part applies to the Use Limitation (UL) Zones. O. Reg. 414/86, s. 44.

45.—(1) Every use of land and every erection, location or use of buildings and structures is prohibited except,

(a) the protection and management of,

(i) lands subject to flooding or high water table, and

(ii) steep slopes subject to erosion;

(b) playgrounds and parks;

(c) agricultural uses, excluding buildings and structures;

(d) conservation uses for the maintenance of areas of biological, cultural or historical significance;

(e) horticultural uses; and

(f) wildlife areas.

(2) Subsection (1) does not prevent structures or measures taken to stabilize lands subject to flooding or erosion. O. Reg. 414/86, s. 45.

PART X

46. Notwithstanding this Order or the revocation of Ontario Regulation 109/75, the lands referred to in sections 20, 45 and 54 of Ontario Regulation 109/75 may continue to be used for the purposes set out therein if the requirements set out therein are met. O. Reg. 414/86, s. 46.

Schedule 1

RURAL ZONES—EXEMPTIONS

1.—(1) Three single dwellings and buildings and structures accessory thereto may be erected and used on the land described in subsection (2).

(2) Subsection (1) applies to that parcel of land in the geographic Township of Ware in the Territorial District of Thunder Bay, being that part of the south half of the south half of Lot 10 in Concession VII more particularly described as Parcel 14360 in the Land Registry Office for the Land Titles Division of Thunder Bay (No. 55). O. Reg. 414/86, Sched. 1.

BERNARD GRANDMAÎTRE
Minister of Municipal Affairs

Dated at Toronto, this 10th day of July, 1986.

PLANNING ACT, 1983

O. Reg. 415/86.

Restricted Areas—County of Simcoe,
Township of Nottawasaga.

Made—July 14th, 1986.

Filed—July 15th, 1986.

**REGULATION TO AMEND
REGULATION 675 OF
REVISED REGULATIONS OF
ONTARIO, 1970
MADE UNDER THE
PLANNING ACT, 1983**

**1. Regulation 675 of Revised Regulations
of Ontario, 1970 is amended by adding
thereto the following section:**

236.—(1) Notwithstanding any other provision of this Order, a single-family dwelling and buildings and structures accessory thereto may be erected and used on the land described in subsection (2) if the following requirements are met:

Minimum front yard	7.6 metres
Minimum side yards	3 metres on one side and 1.2 metres on the other side
Maximum height of single-family dwelling	9.1 metres
Minimum ground floor area of single-family dwelling	one storey—93 square metres one and one-half storeys or more—69.8 square metres

(2) Subsection (1) applies to that parcel of land in the Township of Nottawasaga in the County of Simcoe, being that part of Lot 35 in Concession XI described as Part 1 on a Plan deposited in the Land Registry Office for the Registry Division of Simcoe (No. 51) as Number 51R-14508. O. Reg. 415/86, s. 1.

L. J. FINCHAM
Director

*Plans Administration Branch
Central and Southwest
Ministry of Municipal Affairs*

Dated at Toronto, this 14th day of July, 1986.

PLANNING ACT, 1983

O. Reg. 416/86.

Restricted Areas—The Regional
Municipality of York, Town of
Markham.

Made—July 2nd, 1986.

Filed—July 16th, 1986.

**REGULATION TO AMEND
ONTARIO REGULATION 104/72
MADE UNDER THE
PLANNING ACT, 1983**

**1. Ontario Regulation 104/72 is amended
by adding thereto the following section:**

47.—(1) A single-family dwelling and buildings and structures accessory thereto may be erected and used on the lands described in each of subsections (2) and (3) if the following requirements are met:

Minimum lot area	0.9 hectares
Minimum lot frontage	49 metres
Minimum front yard	50 metres
Minimum side yards	10 metres

(2) Subsection (1) applies to that parcel of land in the Town of Markham in The Regional Municipality of York, being part of Lot 26 in Concession VI described as Part 1 on a Plan deposited in the Land Registry Office for the Registry Division of York Region (No. 65) as Number 65R-8879.

(3) Subsection (1) applies to that parcel of land in the Town of Markham in The Regional Municipality of York, being part of Lot 26 in Concession VI described as Part 2 on a Plan deposited in the Land Registry Office for the Registry Division of York Region (No. 65) as Number 65R-8879. O. Reg. 416/86, s. 1.

L. J. FINCHAM
Director

*Plans Administration Branch
Central and Southwest
Ministry of Municipal Affairs*

Dated at Toronto, this 2nd day of July, 1986.

EXECUTIVE COUNCIL ACT

O. Reg. 417/86.

Transfer of Administration of
Acts—Minister of Financial
Institutions.

Made—March 26th, 1986.

Filed—July 17th, 1986.

ORDER IN COUNCIL

On the recommendation of the undersigned, the Lieutenant Governor, by and with the advice and concurrence of the Executive Council, orders that pursuant to subsections 2 (1) and 5 (1) of the *Executive Council Act* and effective on and after the 1st day of April, 1986, the administration of and all powers and duties under or in relation to the Acts of the Legislature of Ontario hereinafter set forth shall be and they are hereby assigned to the Minister of Financial Institutions,

The Commodity Futures Act
The Deposits Regulation Act
The Securities Act
The Toronto Futures Exchange Act, 1983
The Toronto Stock Exchange Act, 1982
The Pension Benefits Act
The Central Trust Company Act
The Compulsory Automobile Insurance Act
The Co-operative Corporations Act
The Credit Unions and Caisses Populaires Act
The Crown Trust Company Act, 1983
The Guarantee Companies Securities Act
The Insurance Act
The Investment Contracts Act
The Loan and Trust Corporations Act
The Marine Insurance Act
The Ontario Credit Union League Limited Act,
1972
The Ontario Deposit Insurance Corporation Act
The Prepaid Hospital and Medical Services Act
The Registered Insurance Brokers Act
The Motor Vehicle Accident Claims Act
The Mortgage Brokers Act. O. Reg. 417/86.

Recommended

DAVID PETERSON
*Premier and President
of the Council*

Concurred

JAMES BRADLEY
Chairman

Approved and Ordered, March 26, 1986.

LINCOLN M. ALEXANDER
Lieutenant Governor

(9097)

31

EXECUTIVE COUNCIL ACT

O. Reg. 418/86.

Transfer of Administration of
Act—*Mining Tax Act*.

Made—May 15th, 1986.

Filed—July 17th, 1986.

ORDER IN COUNCIL

On the recommendation of the undersigned, the Lieutenant Governor, by and with the advice and concurrence of the Executive Council, orders that pursuant to subsection 5 (1) of the *Executive Council Act*, R.S.O. 1980, chapter 147, the powers and duties under the *Mining Tax Act*, R.S.O. 1980, chapter 269, that have been assigned and transferred to the Minister of Northern Development and Mines be assigned and transferred for an unlimited period of time to the Minister of Revenue and the duties of the Ministry of Northern Development and Mines with respect to that Act be assigned and transferred to the Ministry of Revenue. O. Reg. 418/86.

Recommended

DAVID PETERSON
*Premier and President
of the Council*

Concurred

ELINOR CAPLAN
Chairman

Approved and Ordered, May 15, 1986.

LINCOLN M. ALEXANDER
Lieutenant Governor

(9098)

31

BUILDING CODE ACT

O. Reg. 419/86.

General.

Made—July 17th, 1986.

Filed—July 18th, 1986.

This Regulation will appear in the August 9th, 1986
issue of *The Ontario Gazette*.

PROFESSIONAL ENGINEERS ACT, 1984

O. Reg. 420/86.

General.

Made—June 16th, 1986.

Approved—July 17th, 1986.

Filed—July 18th, 1986.

**REGULATION TO AMEND
ONTARIO REGULATION 538/84
MADE UNDER THE
PROFESSIONAL ENGINEERS ACT,
1984**

**1. Sections 57 to 69 and section 100 of
Ontario Regulation 538/84 are revoked.**

Made by the Council on the 16th day of June, 1986.

ASSOCIATION OF PROFESSIONAL
ENGINEERS OF ONTARIO:

C. MACKAY-LASSONDE
President

P. J. OSMOND
Registrar

(9100)

31

PROFESSIONAL ENGINEERS ACT, 1984

O. Reg. 421/86.

General.

Made—June 16th, 1986.

Approved—July 17th, 1986.

Filed—July 18th, 1986.

**REGULATION TO AMEND
ONTARIO REGULATION 538/84
MADE UNDER THE
PROFESSIONAL ENGINEERS ACT,
1984**

**1. Ontario Regulation 538/84 is amended
by adding thereto the following section:**

91a. The following are prescribed as performance standards with respect to the general review of the construction, enlargement or alteration of a building by a professional engineer as provided for in the building code made under the *Building Code Act*:

1. The professional engineer, with respect to the matters that are governed by the building code, shall,

- i. make periodic visits to the site to determine, on a rational sampling

basis, whether the work is in general conformity with the plans and specifications for the building,

- ii. record deficiencies found during site visits and provide the client, the contractor and the owner with written reports of the deficiencies and the actions that must be taken to rectify the deficiencies,
 - iii. review the reports of independent inspection and testing companies called for in the plans and specifications and which pertain directly to the work being reviewed,
 - iv. interpret plans and specifications when requested to do so by the client, contractor or owner, and
 - v. review shop drawings and samples submitted by the contractor for consistency with the intent of the plans and specifications.

2. The professional engineer shall not review work in disciplines in which he or she is not qualified.

3. The professional engineer may delegate one or more of the functions described in paragraph 1 to another person where it is consistent with prudent engineering practice to do so and the functions are performed under the supervision of the professional engineer.

4. In paragraph 1, "plans and specifications" means a plan or other document which formed the basis for the issuance of a building permit and includes all changes thereto that were authorized by the chief official as defined in the *Building Code Act*. O. Reg. 421/86, s. 1.

Made by the Council on the 16th day of June, 1986.

ASSOCIATION OF PROFESSIONAL
ENGINEERS OF ONTARIO:

C. MACKAY-LASSONDE
President

P. J. OSMOND
Registrar

(9101)

31

LAND REGISTRATION REFORM ACT, 1984**O. Reg. 422/86.****General.****Made—July 17th, 1986.****Filed—July 18th, 1986.****REGULATION TO AMEND ONTARIO REGULATION 580/84
MADE UNDER THE
LAND REGISTRATION REFORM ACT, 1984**

1. Forms 1 to 5 of Ontario Regulation 580/84, as remade by section 1 of Ontario Regulation 134/85, are revoked and the following substituted therefor:

Providence
of
Ontario**Transfer/Deed of Land *Acte de cession***Form 1 — Land Registration Reform Act, 1984 *Formule 1 — Loi de 1984 portant réforme de l'enregistrement immobilier*

A

<p>FOR OFFICE USE ONLY USAGÉ INTERNE</p> <p>New Property Identifiers Nouvelles cotes foncières</p> <p>Additional See Schedule Supplément en annexe <input type="checkbox"/></p> <p>Executions Actes d'exécution</p> <p>Additional See Schedule Supplément en annexe <input type="checkbox"/></p>		<p>(1) Registry Enregistrement des actes <input type="checkbox"/></p> <p>(3) Property Identifier(s) Cotes foncières</p> <p>(4) Consideration Contrepartie</p>		<p>(2) Page 1 of of Pages</p> <p>Land Titles Enregistrement des droits immobiliers <input type="checkbox"/></p> <p>Block Piece Property Unité foncière</p>																																									
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<p>(15) Assessment Roll Number of Property Numéro au rôle d'évaluation</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">City Ville</td> <td style="width: 10%;">Mun Municipalité</td> <td style="width: 10%;">Map Plan Plan</td> <td style="width: 10%;">Sub Lotes</td> <td style="width: 10%;">Par Parcelle</td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </table>						City Ville	Mun Municipalité	Map Plan Plan	Sub Lotes	Par Parcelle																																			
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<p>(16) Municipal Address of Property Adresse civique de l'unité foncière</p>		<p>(17) Document Prepared by: Document préparé par:</p>																																											
		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: left;">Fees and Tax/Droits et taxes</th> </tr> <tr> <td style="width: 50%;">Registration Fee Droits d'enregistrement</td> <td style="width: 50%;"></td> </tr> <tr> <td>Land Transfer Tax Droits de mutation</td> <td></td> </tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr> <td colspan="2" style="text-align: right;">Total</td> </tr> </table>				Fees and Tax/Droits et taxes		Registration Fee Droits d'enregistrement		Land Transfer Tax Droits de mutation								Total																											
		Fees and Tax/Droits et taxes																																											
		Registration Fee Droits d'enregistrement																																											
		Land Transfer Tax Droits de mutation																																											
Total																																													



Transfer/Deed of Land

Form 1 — Land Registration Reform Act, 1984

A

FOR OFFICE USE ONLY	(1) Registry <input type="checkbox"/> Land Titles <input type="checkbox"/>		(2) Page 1 of _____ pages	
	(3) Property Identifier(s) Block _____ Property _____		Additional: See Schedule <input type="checkbox"/>	
	(4) Consideration _____ Dollars \$			
	(5) Description This is a Property Division <input type="checkbox"/> Property Consolidation <input type="checkbox"/>			
	New Property Identifiers _____ Additional: See Schedule <input type="checkbox"/>			
Executions _____ Additional: See Schedule <input type="checkbox"/>				
(6) This Document Contains (a) Redescription New Easement Plan/Sketch <input type="checkbox"/> (b) Schedule for Description <input type="checkbox"/> Additional Parties <input type="checkbox"/> Other <input type="checkbox"/>		(7) Interest/Estate Transferred Fee Simple <input type="checkbox"/>		
(8) Transferor(s) The transferor hereby transfers the land to the transferee and certifies that the transferor is at least eighteen years old and that				
Name(s) _____ Signature(s) _____ Date of Signature Y M D				
(9) Spouse(s) of Transferor(s) I hereby consent to this transaction Name(s) _____ Signature(s) _____ Date of Signature Y M D				
(10) Transferor(s) Address for Service _____				
(11) Transferee(s) _____ Date of Birth Y M D				
(12) Transferee(s) Address for Service _____				
(13) Transferor(s) The transferor verifies that to the best of the transferor's knowledge and belief, this transfer does not contravene section 49 of the Planning Act, 1983. Signature _____ Date of Signature Y M D				
Solicitor for Transferor(s) I have explained the effect of section 49 of the Planning Act, 1983 to the transferor and I have made inquiries of the transferor to determine that this transfer does not contravene that section and based on the information supplied by the transferor, to the best of my knowledge and belief, this transfer does not contravene that section. I am an Ontario solicitor in good standing. Signature _____ Date of Signature Y M D				
(14) Solicitor for Transferee(s) I have investigated the title to this land and to abutting land where relevant and I am satisfied that the title records reveal no contravention as set out in subclause 49 (21a) (c) (ii) of the Planning Act, 1983 and that to the best of my knowledge and belief this transferor does not contravene section 49 of the Planning Act 1983. I act independently of the solicitor for the transferor(s) and I am an Ontario solicitor in good standing. Name and Address of Solicitor _____ Signature _____ Date of Signature Y M D				
(15) Assessment Roll Number of Property Cty. Mun. Map Sub Per				
(16) Municipal Address of Property _____				
(17) Document Prepared by: _____				
Fees and Tax				
Registration Fee _____				
Land Transfer Tax _____				
Total _____				



Acte de cession

A

Formula 1 — Loi de 1984 portant réforme de l'enregistrement

immobilier

USAGE INTERNE	(1) Enregistrement des actes <input type="checkbox"/> Enregistrement des droits immobiliers <input type="checkbox"/>		(2) Page 1 (de pages)	
	(3) Cotes foncières		Pièce	Unité foncière
	(4) Contrepartie		dollars \$	
	(5) Description:		Division d'unité foncière <input type="checkbox"/>	Réunion d'unités foncières <input type="checkbox"/>
Nouvelles cotes foncières		Supplément en annexe <input type="checkbox"/>		
Actes d'exécution		Supplément en annexe <input type="checkbox"/>		
(6) Contenu du document:		(a) Nouvelle description Nouvelle servitude Plan/procès <input type="checkbox"/>	(b) Annexe Description <input type="checkbox"/>	(7) Droit cédé Autres parties <input type="checkbox"/> Divers <input type="checkbox"/>
(8) Cédant(s): le cédant cède l'unité foncière au cessionnaire. Il affirme être majeur et				
Nom(s)		Signature(s)		Date de signature A M J
(9) Conjoint(s) du (des) cédant(s). Je consens à la présente opération.				
Nom(s)		Signature(s)		Date de signature A M J
(10) Domicile élu du (des) cédant(s)				
(11) Cessionnaire(s)				
Date de naissance A M J				
(12) Domicile élu du (des) cessionnaire(s)				
(13) Cédant(s): le cédant déclare, au mieux de ce qu'il sait et tient pour vérifique, que la cession ne contrevient pas à l'article 49 de la Loi de 1983 sur l'aménagement du territoire				
Signature		Date de signature A M J		Signature
Avocat du (des) cédant(s): J'ai expliqué au cédant la portée de l'article 49 de la Loi de 1983 sur l'aménagement du territoire. J'ai vérifié auprès du cédant que la cession ne contrevient pas à cet article. Suivant les renseignements que m'a fournis le cédant, et au mieux de ce que je sais et tiens pour vérifique, la cession ne contrevient pas à l'article 49 de la Loi de 1983 sur l'aménagement du territoire.				
Nom et adresse de l'avocat		Signature		Date de signature A M J
(14) Avocat du (des) cessionnaire(s): J'ai fait des recherches concernant le droit de propriété sur l'unité foncière et, le cas échéant, sur les unités foncières contigües. Je suis convaincu que les documents qui constatent le droit de propriété ne révèlent aucune contravention au sous-alinéa 49(2) a) c) (ii) de la Loi de 1983 sur l'aménagement du territoire et, que, au mieux de ce que je sais et tiens pour vérifique, la cession ne contrevient pas à l'article 49 de cette loi. J'agis indépendamment de l'avocat du cédant et suis un avocat habilité à exercer en Ontario.				
Nom et adresse de l'avocat		Signature		Date de signature A M J
(15) Numéro au rôle d'évaluation				
Vite <input type="checkbox"/> Révisé <input type="checkbox"/> Par <input type="checkbox"/> L'impôt <input type="checkbox"/> Perçue <input type="checkbox"/>				
(16) Adresse civique de l'unité foncière				
(17) Document préparé par:				
Droits et taxes				
Droits d'enregistrement				
Droits de mutation				
Total				



Province
of
Ontario

Charge/Mortgage of Land *Acte de charge (hypothèque)*

Form 2 — Land Registration Reform Act, 1984

Formule 2 — Loi de 1984 portant réforme de
flamme plateaux et images à l'illu.

B

<p>FOR OFFICE USE ONLY USAGE INTERNE</p>		<p>(1) Registry Enregistrement des actes</p>		<p>Land Titles Enregistrement des droits immobiliers</p>		<p>(2) Page 1 of/de Pages</p>									
		<p>(3) Property Identifiers Cotes foncières</p>		<p>Block Pièce</p>		<p>Property Unité foncière</p>		<p>Additional: See Schedule Supplément en annexe <input type="checkbox"/></p>							
		<p>(4) Principal Amount Capital</p>													
		<p>(5) Description</p>													
<p>New Property Identifiers Nouvelles cotes foncières</p>		<p>Additional: See Schedule Supplément en annexe <input type="checkbox"/></p>													
<p>(6) This Document Contains Contenu du document:</p>		<p>(a) Redescription New Easement Plan/Sketch</p>		<p>(b) Schedule for Annex Description <input type="checkbox"/></p>		<p>Additional Parties Autres parties <input type="checkbox"/></p>		<p>(7) Interest/Estate Charged/Droit cédé Fee Simple <input type="checkbox"/></p>							
<p>(8) Standard Charge Terms — The parties agree to be bound by the provisions in Standard Charge Terms filed as number and the et les <i>Clauses types de la charge</i> — Les parties sont liées par les clauses types de la charge déposées au numéro et les Charge(s) hereby acknowledge(s) receipt of a copy of these terms. <i>Charge(s) reconnaissent en avoir reçu copie.</i></p>															
<p>(9) Payment Provisions/Modalités de paiement</p>															
<p>(a) Principal Amount \$ Capital \$</p>			<p>(b) Interest Rate Taux d'intérêt % per annum % par an</p>			<p>(c) Calculation Period Terme</p>									
<p>(d) Interest Adjustment Date/Date de rautement de l'intérêt Y/A M/M D/J</p>			<p>(e) Payment Date and Period/Echéance et terme des versements</p>			<p>(f) First Payment Date/Date du versement initial Y/A M/M D/J</p>									
<p>(g) Last Payment Date/Date du dernier versement</p>			<p>(h) Amount of Each Payment/Montant des versements</p>			<p>Dollars \$</p>									
<p>(i) Balance Due Date Date d'échéance du solde</p>			<p>(j) Insurance Assurance</p>			<p>Dollars \$</p>									
<p>(11) Chargor(s) The chargor hereby charges the land to the chargee and certifies that the chargor is at least eighteen years old and that and that <i>Constituant(s)</i> Le constituant grève le bien-fonds en faveur du titulaire. Il déclare être majeur et</p>															
<p>The chargor(s) acknowledge(s) receipt of a true copy of this charge. / Le constituant reconnaît avoir reçu copie conforme de cette charge.</p>															
<p>Name(s)/Nom(s)</p>						<p>Signature(s)</p>									
<p>(12) Spouse(s) of Chargeor(s) I hereby consent to this transaction. / <i>Conjoint(s) du (des) constituant(s)</i> Je consens à la présente opération.</p>															
<p>Name(s)/Nom(s)</p>						<p>Signature(s)</p>									
<p>(13) Chargeor(s) Address for Service Domicile élu du (des) constituant(s)</p>															
<p>(14) Chargee(s) Titulaire(s)</p>															
<p>(15) Chargee(s) Address for Service Domicile élu du (des) titulaire(s)</p>															
<p>(16) Assessment Roll Number of Property Numéro au rôle d'évaluation</p>				<p>City/Ville</p>		<p>Mun.</p>		<p>Map/Plan</p>		<p>Sub-Loose</p>		<p>Par/Parcels</p>		<p>Fees/Droits</p>	
<p>(17) Municipal Address of Property Adresse civique de l'unité foncière</p>												<p>(18) Document Prepared by: Document préparé par:</p>			
<p>Registration Fee Droits d'enregistrement</p>												<p></p>			
<p>Total</p>												<p></p>			




Acte de charge (hypothèque)

B

Formulaire 2 — Loi de 1984 portant réforme de l'enregistrement immobilier

USAGE INTERNE	(1) Enregistrement des actes <input type="checkbox"/> Enregistrement des droits immobiliers <input type="checkbox"/>		(2) Page 1 (de pages)		
	(3) Cotes foncières Pièce Unité foncière		Supplément en annexe <input type="checkbox"/>		
	(4) Capital dollars \$				
	(5) Description:				
	Nouvelles cotes foncières Supplément en annexe <input type="checkbox"/>				
Actes d'exécution		Supplément en annexe <input type="checkbox"/>			
(6) Contenu du document:		(a) Nouvelle description Nouvelle servitude Plan/croquis <input type="checkbox"/>		(b) Annexe: Description <input type="checkbox"/> Autres parties <input type="checkbox"/> Divers <input type="checkbox"/>	
				(7) Droit cede fiel simple	
(8) Clauses types de la charge — Les parties sont liées par les clauses types de la charge déposées au numéro et les constituants reconnaissent en avoir reçu copie.					
(9) Modalités de paiement		(a) Capital \$		(b) Taux d'intérêt % par an	
(c) Terme					
(d) Date de rachat de l'intérêt		A M J		Echéance et (e) terme des versements	
(f) Date du dernier versement		A M J		Montant (h) des versements dollars \$	
(g) Date d'échéance du solde		A M J		Assurance (i) dollars \$	
(10) Dispositions supplémentaires:					
Suite en annexe <input type="checkbox"/>					
(11) Constituant(s) — Le constituant grève le bien-fonds en faveur du titulaire. Il déclare être majeur et					
Le constituant reconnaît avoir reçu copie conforme de cette charge.					
Nom(s)		Signature(s)		Date de signature A M J	
(12) Conjoint(s) du (des) constituant(s). Je consens à la présente opération.					
Nom(s)		Signature(s)		Date de signature A M J	
(13) Domicile élu du (des) constituant(s)					
(14) Titulaire(s)					
(15) Domicile élu du (des) titulaire(s)					
(16) Numéro au rôle d'évaluation		Ville Muni- cipal Plan Lotise- ment Parcelle		Droits	
(17) Adresse civique de l'unité foncière		(18) Document préparé par:		Droits d'enregistrement	
				Total	

10172 (2/85)



Province of Ontario
Province de l'Ontario

Discharge of Charge/Mortgage
Form 3 — Land Registration Reform Act, 1984

Mainlevée de charge (hypothèque)
Formule 3 — Loi de 1984 portant réforme de l'enregistrement immobilier

C

FOR OFFICE USE ONLY / USAGE BUREAU

(1) Registry
Enregistrement des actes

☐

Land Titles
Enregistrement des droits immobiliers

☐

(2) Page 1 of / de

Pages

(3) Property Identifiers(s)
Cotes foncières

Block
Pièce

Property
Unité foncière

Additional See
Schedule
Supplément
en annexe

☐

(4) Description

(5) Charge to be Discharged
Registration Number
Numéro d'enregistrement

Charge dont mainlevée est donnée
Date of Registration
Date de l'enregistrement
Y/A M/M D/J

(6) This is a
Mainlevée

Complete Discharge
complète

Partial Discharge
partielle

Final Partial Discharge
partielle finale

☐

(7) Description (cont'd.), Recitals, Assignments
Description (suite), déclarations liminaires, cessions

Continued on Schedule
Suite en annexe ☐

(8) Chargee(s) I am the person entitled by law to grant the discharge and this charge is hereby discharged as to the land described herein.
Titulaire(s) Je suis la personne qui a, en droit, le pouvoir de donner mainlevée de la charge, et je donne mainlevée de la charge grevant le bien-fonds

Name(s)/Nom(s)

Signature(s)

Y/A M/M D/J

Additional: See Schedule
Supplément en annexe ☐

(9) Chargee(s) Address for Service
Domicile élu du (des) titulaire(s) de la charge

(10) Document Prepared by:
Document préparé par:

Fees/Droits

Registration Fee
Droits d'enregistrement

Total

10175 (01-86)

1263



Discharge of Charge/Mortgage

Form 3 — Land Registration Reform Act, 1984

C

<div>FOR OFFICE USE ONLY</div>	(1) Registry <input type="checkbox"/> Land Titles <input type="checkbox"/>		(2) Page 1 of _____ pages	
	(3) Property Identifier(s)		Block _____	Property _____
			Additional: See Schedule <input type="checkbox"/>	
	(4) Description			
New Property Identifiers		Additional: See Schedule <input type="checkbox"/>		
(5) Charge to be Discharged		(6) This is a		
Registration Number _____		Date of Registration Y _____ M _____ D _____		
		Complete Discharge <input type="checkbox"/> Partial Discharge <input type="checkbox"/> Final Partial Discharge <input type="checkbox"/>		
(7) Description (cont'd.), Recitals, Assignments				
Continued on Schedule <input type="checkbox"/>				
(8) Chargee(s) I am the person entitled by law to grant the discharge and this charge is hereby discharged as to the land described herein.				
Name(s)		Signature(s)		
		Date of Signature Y _____ M _____ D _____		
Additional: See Schedule <input type="checkbox"/>				
(9) Chargee(s) Address for Service		(10) Document Prepared by:		
<div>FOR OFFICE USE ONLY</div>		Fees		
		Registration Fee		
		Total		




Mainlevée de charge (hypothèque)

C

Formule 3 — Loi de 1984 portant réforme de l'enregistrement

immobiliser

USAGE INTERNE	(1) Enregistrement des actes <input type="checkbox"/> Enregistrement des droits immobiliers <input type="checkbox"/>		(2) Page 1 (de pages)											
	(3) Cotes foncières		Pièce Unité foncière Supplément en annexe <input type="checkbox"/>											
	(4) Description:													
(5) Charge dont mainlevée est donnée Numéro d'enregistrement Date de l'enregistrement <div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid black; width: 100px; height: 20px;"></div> <div style="border: 1px solid black; width: 100px; height: 20px; display: flex; align-items: center; justify-content: center;"> A M J </div> </div>			(6) Mainlevée <div style="display: flex; justify-content: space-around;"> complète <input type="checkbox"/> partielle <input type="checkbox"/> partielle finale <input type="checkbox"/> </div>											
(7) Description (suite), déclarations liminaires, cessions														
Suite en annexe <input type="checkbox"/>														
(8) Titulaire(s) Je suis la personne qui a en droit le pouvoir de donner mainlevée de la charge, et je donne mainlevée de la charge grevant le bien-fonds.														
Nom(s)		Signature(s)		Date de signature <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> <div style="border: 1px solid black; width: 20px; height: 20px;"></div> </div>										
(9) Domicile élu du (des) titulaire(s) de la charge		(10) Document préparé par:		Droits <div style="border: 1px solid black; width: 100%; height: 100%; position: relative;"> <div style="position: absolute; top: 0; right: 0; bottom: 0; left: 0; display: flex; align-items: center; justify-content: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold;">USAGE INTERNE</div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Droits d'enregistrement</td> <td style="width: 70%;"></td> </tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr> <td style="text-align: right;">Total</td> <td> </td> </tr> </table> </div> </div>	Droits d'enregistrement								Total	
Droits d'enregistrement														
Total														



Province of
Ontario

Province
de
l'Ontario

Document General

Form 4 — Land Registration Reform Act, 1984

Document général

Formule 4 — Loi de 1984 portant réforme de
l'enregistrement immobilier

D

FOR OFFICE USE ONLY/USAGE INTERNE

New Property Identifiers
Nouvelles cotes foncières

Additional See
Schedule
Supplément
en annexe ☐

Executions
Actes d'exécution

Additional See
Schedule
Supplément
en annexe ☐

(1) Registry
Enregistrement des actes ☐

Land Titles
Enregistrement des
droits immobiliers ☐

(2) Page 1 of/de
Pages

(3) Property
Identifiers(s)
Cotes
foncières

Block
Pièce

Property
Unité foncière

Additional See
Schedule
Supplément
en annexe ☐

(4) Nature of Document
Nature du document

(5) Consideration
Contrepartie

Dollars \$

\$

(6) Description

(7) This
Document
Contains:
Contenu du
document:

(a) Redescription
New Easement
Plan/Sketch

Nouvelle description
Nouvelle servitude
Plan/croquis ☐

(b) Schedule for
Annexe

Description
Description ☐

Additional
Parties
Autres
parties ☐

Other
Divers ☐

(8) This Document provides as follows:
Termes du document:

Continued on Schedule
Suite en annexe ☐

(9) This Document relates to instrument number(s)
Numéros des actes visés par ce document:

(10) Party(ies) (Set out Status or Interest)/Partie(s) (Indiquer le titre ou les droits)

Name(s)/Nom(s)

Signature(s)

Y/A

M/M

D/J

(11) Address for Service
Domicile élu

(12) Party(ies) (Set out Status or Interest)/Partie(s) (Indiquer le titre ou les droits)

Name(s)/Nom(s)

Signature(s)

Y/A

M/M

D/J

(13) Address for Service
Domicile élu

(14) Municipal Address of Property
Adresse civique de l'unité foncière

(15) Document Prepared by:
Document préparé par:

Fees and Tax/Droits et taxes

Registration fee
Droits d'enregistrement

Total

10174 (01/86)

1266



Document General

Form 4 — Land Registration Reform Act, 1984

D

<div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; border: 1px solid black; padding: 2px;">FOR OFFICE USE ONLY</div>	(1) Registry <input type="checkbox"/> Land Titles <input type="checkbox"/>	(2) Page 1 of _____ pages																								
	(3) Property Identifier(s) _____ Block _____ Property _____	Additional See Schedule <input type="checkbox"/>																								
	(4) Nature of Document _____																									
	(5) Consideration _____ Dollars \$																									
	(6) Description _____																									
	(7) This Document Contains: <div style="display: flex; justify-content: space-between; font-size: small;"> <div> (a) Redescription New Easement Plan/Sketch <input type="checkbox"/> </div> <div> (b) Schedule for: <div style="display: flex; justify-content: space-between;"> Description <input type="checkbox"/> Additional Parties <input type="checkbox"/> Other <input type="checkbox"/> </div> </div> </div>																									
(8) This Document provides as follows: _____																										
Continued on Schedule <input type="checkbox"/>																										
(9) This Document relates to instrument number(s) _____																										
<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 70%; text-align: left; font-size: small;">(10) Party(ies) (Set out Status or Interest)</th> <th style="width: 30%; text-align: left; font-size: small;">Signature(s)</th> <th style="width: 30%; text-align: left; font-size: small;">Date of Signature</th> </tr> <tr> <td style="font-size: x-small;">Name(s)</td> <td></td> <td style="text-align: center; font-size: x-small;">Y M D</td> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>			(10) Party(ies) (Set out Status or Interest)	Signature(s)	Date of Signature	Name(s)		Y M D																		
(10) Party(ies) (Set out Status or Interest)	Signature(s)	Date of Signature																								
Name(s)		Y M D																								
(11) Address for Service _____																										
<table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 70%; text-align: left; font-size: small;">(12) Party(ies) (Set out Status or Interest)</th> <th style="width: 30%; text-align: left; font-size: small;">Signature(s)</th> <th style="width: 30%; text-align: left; font-size: small;">Date of Signature</th> </tr> <tr> <td style="font-size: x-small;">Name(s)</td> <td></td> <td style="text-align: center; font-size: x-small;">Y M D</td> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>			(12) Party(ies) (Set out Status or Interest)	Signature(s)	Date of Signature	Name(s)		Y M D																		
(12) Party(ies) (Set out Status or Interest)	Signature(s)	Date of Signature																								
Name(s)		Y M D																								
(13) Address for Service _____																										
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10174 (12/84)



Document général

Formule 4 — Loi de 1984 portant réforme de l'enregistrement

immobilier

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	(3) Cotes foncières		Pièce	Unité foncière
	(4) Nature du document		Supplément en annexe <input type="checkbox"/>	
	(5) Contrepartie			
	(6) Description		dollars _____ \$	
	Nouvelles cotes foncières		Supplément en annexe <input type="checkbox"/>	
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			(b) Annexe. Description <input type="checkbox"/> Autres parties <input type="checkbox"/> Divers <input type="checkbox"/>	
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(14) Adresse civique de l'unité foncière		(15) Document préparé par:		Droits et taxes
				Droits d'enregistrement
				Total

10174 (2/85)



Schedule/Annexe
Form 5 — Land Registration Reform Act, 1984
Formule 5 — Loi de 1984 portant réforme de l'enregistrement immobilier

S

Page _____

Additional Property Identifier(s) and/or Other Information
Cote(s) foncières additionnelle(s) et renseignements supplémentaires

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Schedule

Form 5 — Land Registration Reform Act, 1984

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Additional Property Identifier(s) and/or Other Information

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10178 (12/84)



Province
de
l'Ontario

Annexe

Formule 5 — Loi de 1984 portant réforme de l'enregistrement

immobilier

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Cote(s) foncière(s) additionnelle(s) et renseignements supplémentaires

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10172 (2/85)

O. Reg. 422/86, s. 1, *part.*

2. This Regulation comes into force on the 30th day after the day it is filed with the Registrar of Regulations.

**HOMEMAKERS AND NURSES
SERVICES ACT****O. Reg. 423/86.**

General.

Made—July 9th, 1986.

Filed—July 18th, 1986.

**REGULATION TO AMEND
REGULATION 499 OF
REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
HOMEMAKERS AND NURSES
SERVICES ACT**

1. Table 1 of Regulation 499 of Revised Regulations of Ontario, 1980, as remade by section 2 of Ontario Regulation 105/85, is revoked.

(9105)

31

Publications Under The Regulations Act

August 9th, 1986

BUILDING CODE ACT

O. Reg. 419/86.

General.

Made—July 17th, 1986.

Filed—July 18th, 1986.

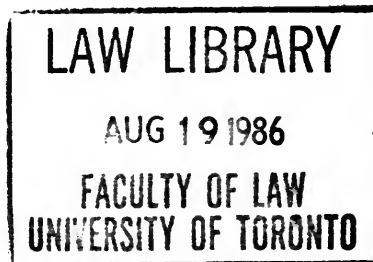
REGULATION MADE UNDER THE BUILDING CODE ACT

PART 1

SCOPE AND DEFINITIONS

TABLE OF CONTENTS

SECTION 1.1	ADMINISTRATION
SECTION 1.2	RESERVED
SECTION 1.3	DEFINITIONS OF WORDS AND PHRASES
SECTION 1.4	ABBREVIATIONS



PART 1 SCOPE AND DEFINITIONS

SECTION 1.1 ADMINISTRATION

SUBSECTION 1.1.1. This Code shall be administered in conformance with the Building Code Act.

SECTION 1.2 SCOPE

RESERVED.

SECTION 1.3 DEFINITIONS OF WORDS AND PHRASES

SUBSECTION 1.3.1. Definitions of words and phrases used in this Code that are not included in the list of definitions in this Part shall have the meanings which are commonly assigned to them in the context in which they are used in this Code, taking into account the specialized use of terms with the various trades and professions to which the terminology applies.

SUBSECTION 1.3.2. The words and terms underlined in this Code have the following meanings or the meanings as defined in the Act.

Access to exit means that part of a means of egress within a floor area that provides access to an exit serving the floor area.

Adfreezing means the adhesion of soil to a foundation unit resulting from the freezing of soil water.

Air-supported structure means a structure consisting of a pliable membrane which achieves and maintains its shape and support by internal air pressure.

Alarm signal means an audible signal transmitted throughout a zone or zones or throughout a building to advise occupants that a fire emergency exists.

Alert signal means an audible signal to advise designated persons of a fire emergency.

Allowable bearing pressure means the maximum pressure that may be safely applied to a soil or rock by the foundation unit considered in design under expected loading and subsurface conditions.

Allowable load means the maximum load that may be safely applied to a foundation unit considered in design under expected loading and subsurface conditions.

Appliance means a device to convert fuel into energy and includes all components, controls, wiring and piping required to be part of the device by the applicable standard referred to in this Code.

Artesian groundwater means a confined body of water under pressure in the ground.

Assembly occupancy means the occupancy or the use of a building, or part thereof, by a gathering of persons for civic, political, travel, religious social, educational, recreational or like purposes, or for the consumption of food or drink.

Attic or roof space means the space between the roof and the ceiling of the top storey or between a dwarf wall and a sloping roof.

Authority having jurisdiction means the governmental body responsible for the enforcement of any part of this Code or the official or agency designated by that body to exercise such a function.

Bachelor dwelling unit means a dwelling unit for 1 or 2 adults with or without 1 bedroom.

Barrier-free access means a path of travel designed for use by persons with physical or sensory disabilities, including those using wheelchairs, and incorporating ramps, elevators or other lifting devices where there is a difference in elevation between floor levels along the path of travel.

Basement means a storey or storeys of a building located below the first storey.

Bearing surface means the contact surface between a foundation unit and the soil or rock upon which it bears.

Boarding, lodging or rooming house means a building where

- (a) building height does not exceed 3 storeys and building area does not exceed 600 m²,
- (b) lodging is provided for gain with or without meals for more than 3 persons, and
- (c) lodging rooms do not have both bathrooms and kitchen facilities for the exclusive use of individual occupants.

Boiler means an appliance intended to supply hot water or steam for space heating, processing or power purposes.

Breeching means a flue pipe or chamber for receiving flue gases from 1 or more flue connections and for discharging these gases through a single flue connection.

Building area means the greatest horizontal area of a building above grade within the outside surface of exterior walls or within the outside surface of exterior walls and the centre line firewalls.

Building height means the number of storeys contained between the roof and the floor of the first storey.

Business and personal services occupancy means the occupancy or use of a building or part thereof for the transaction of business or the rendering or receiving of professional or personal services.

Chimney means a primarily vertical shaft enclosing at least 1 flue for conducting flue gases to the outdoors.

Chimney liner means a conduit containing a chimney flue used as a lining of a masonry or concrete chimney.

Closure means a device or assembly for closing an opening through a fire separation, such as a door, a shutter, wired glass or glass block, and includes all components such as hardware, closing devices, frames and anchors.

Combustible means that a material fails to meet the acceptance criteria of CAN4-S114, "Standard Method of Test for Determination of Non-Combustibility in Building Materials."

Combustible construction means that type of construction that does not meet the requirements for noncombustible construction.

Constructor means a person who contracts with an owner or his authorized agent to undertake a project, and includes an owner who contracts with more than 1 person for the work on a project or undertakes the work on a project or any part thereof.

Dead load means the weight of all permanent structural and nonstructural components of a building.

Deep foundation means a foundation unit that provides support for a building by transferring loads either by end-bearing to a soil or rock at considerable depth below the building, or by adhesion or friction, or both, in the soil or rock in which it is placed. Piles are the most common type of deep foundation.

Design bearing pressure means the pressure applied by a foundation unit to a soil or rock and which is not greater than the allowable bearing pressure.

Designer means the person responsible for the design.

Design load means the load applied to a foundation unit and which is not greater than the allowable load.

Dwelling unit means a suite operated as a housekeeping unit, used or intended to be used as a domicile by 1 or more persons and usually containing cooking, eating, living, sleeping and sanitary facilities.

Excavation means the space created by the removal of soil, rock or fill for the purposes of construction.

Exhaust duct means a duct through which air is conveyed from a room or space to the outdoors.

Exit means that part of a means of egress that leads from the floor area it serves, including any doorway leading directly from a floor area, to an open public thoroughfare or to an exterior open space protected from fire exposure from the building and having access to an open public thoroughfare.

Exit level means the level of an enclosed exit stair in a building governed by Subsection 3.2.6. at which an exterior exit door or exit corridor leads to the exterior.

Exit storey means a storey having an exterior exit door in a building governed by Subsection 3.2.6.

Exposing building face means that part of the exterior wall of a building which faces one direction and is located between ground level and the ceiling of its top storey, or where a building is divided into fire compartments, the exterior wall of a fire compartment which faces one direction.

Exterior cladding means those components of a building which are exposed to the outdoor environment and are intended to provide protection against wind, water or vapour.

Factory-built chimney means a chimney consisting entirely of factory-made parts, each designed to be assembled with the other without requiring fabrication on site.

Farm building means a building which does not contain a residential occupancy and which is (a) associated with and located on land devoted to the practice of farming and (b) used essentially for the housing of equipment or livestock, or the production, storage or processing of agricultural and horticultural produce or feeds and includes barns, produce storage buildings, milking centres, piggeries, poultry houses, grain bins, silos, machinery sheds, farm workshops, feed preparation centres, tobacco pack barns, manure storages, greenhouses and garages not attached to the farm residence.

Fill means soil, rock, rubble, industrial waste such as slag, organic material or a combination of these that is transported and placed on the natural surface of a soil or rock or organic terrain. It may or may not be compacted.

Fire compartment means an enclosed space in a building that is separated from all other parts of the building by enclosing construction providing a fire separation that may be required to have a fire-resistance rating.

Fire damper means a closure which consists of a normally held open damper installed in an air distribution system or in a wall or floor assembly, and designed to close automatically in the event of a fire in order to maintain the integrity of the fire separation.

Fire detector means a device which detects a fire condition and automatically initiates an electrical signal to actuate an alert signal or or alarm signal and includes heat detectors and smoke detectors.

Fire load means the combustible contents of a room or floor area expressed in terms of the average weight of combustible materials per unit area, from which the potential heat liberation may be calculated based on the calorific value of the materials, and includes the furnishings, finished floor, wall and ceiling finishes, trim and temporary and movable partitions.

Fire-protection rating means the time in hours or fraction thereof that a closure will withstand the passage of flame when exposed to fire under specified conditions of test and performance criteria, or as otherwise prescribed in this Code.

Fire-resistance rating means the time in hours or fraction thereof that a material or assembly of materials will withstand the passage of flame and the transmission of heat when exposed to fire under specified conditions of test and performance criteria, or as determined by extension or interpretation of information derived therefrom as prescribed in this Code.

Fire-retardant treated wood means wood or a wood product that has had its surface-burning characteristics, such as flame spread, rate of fuel contribution and density of smoke developed, reduced by impregnation with fire-retardant chemicals.

Fire separation means a construction assembly that acts as a barrier against the spread of fire.

Fire stop flap means a device intended for use in horizontal assemblies required to have a fire-resistance rating and incorporating protective ceiling membranes, which operates to close off a duct opening through the membrane in the event of a fire.

Firewall means a type of fire separation of noncombustible construction which subdivides a building or separates adjoining buildings to resist the spread of fire and which has a fire-resistance rating as prescribed in this Code and has structural stability to remain intact under fire conditions for the required fire-rated time.

First storey means the storey with its floor closest to grade and having its ceiling more than 1.8 m above grade.

Flame-spread rating means an index or classification indicating the extent of spread-of-flame on the surface of a material or an assembly of materials as determined in a standard fire test as prescribed in this Code.

Floor area means the space on any storey of a building between exterior walls and required firewalls, including the space occupied by interior walls and partitions, but not including exits and vertical service spaces that pierce the storey.

Flue means an enclosed passageway for conveying flue gases.

Flue collar means the portion of a fuel-fired appliance designed for the attachment of the flue pipe or breeching.

Flue pipe means the pipe connecting the flue collar of an appliance to a chimney.

Forced-air furnace means a furnace equipped with a fan that provides the primary means for the circulation of air.

Foundation means a system or arrangement of foundation units through which the loads from a building are transferred to supporting soil or rock.

Foundation unit means one of the structural members of the foundation of a building such as a footing, raft or pile.

Frost action means the phenomenon that occurs when water in soil is subjected to freezing which, because of the water ice phase change or ice lens growth, results in a total volume increase or the build-up of expansive forces under confined conditions or both, and the subsequent thawing that leads to loss of soil strength and increased compressibility.

Furnace means a space-heating appliance using warm air as the heating medium and usually having provision for the attachment of ducts.

Gas vent means that portion of a venting system designed to convey vent gases to the outdoors from the vent connector of a gas-fired appliance or directly from the appliance when a vent connector is not used.

Grade means the average level of proposed or finished ground adjoining a building at all exterior walls.

Gross area means the total area of all floors above grade measured between the outside surfaces of exterior walls or between the outside surfaces of exterior walls and the centre line of firewalls except that, in any other occupancy than a residential occupancy, where an access or a building service penetrates a firewall, measurements shall not be taken to the centre line of such firewall.

Groundwater means a free standing body of water in the ground.

Groundwater level means the top surface of a free standing body of water in the ground.

Guard means a protective barrier around openings in floors or at the open sides of stairs, landings, balconies, mezzanines, galleries, raised walkways or other locations to prevent accidental falls from one level to another. Such barrier may or may not have openings through it.

Heat detector means a fire detector designed to operate at a predetermined temperature or rate of temperature rise.

Heavy timber construction means that type of combustible construction in which a degree of fire safety is attained by placing limitations on the sizes of wood structural members and on thickness and composition of wood floors and roofs and by the avoidance of concealed spaces under floors and roofs.

High hazard industrial occupancy means an industrial occupancy containing sufficient quantities of highly combustible and flammable or explosive materials which, because of their inherent characteristics, constitute a special fire hazard.

Horizontal exit means an exit from one building to another by means of a doorway, vestibule, walkway, bridge or balcony.

Horizontal service space means a space such as an attic, duct, ceiling, roof or crawl space oriented essentially in a horizontal plane, concealed and generally inaccessible, through which building service facilities such as pipes, ducts and wiring may pass.

Indirect service water heater means a service water heater that derives its heat from a heating medium such as warm air, steam or hot water.

Industrial occupancy means the occupancy or use of a building or part thereof for the assembling, fabricating, manufacturing, processing, repairing or storing of goods and materials.

Infirm persons means all institutionalized persons whose age or health is such that they require institutional care or treatment.

Institutional occupancy means the occupancy or use of a building or part thereof by persons who are involuntarily detained, or detained for penal or correctional purposes, or whose liberty is restricted, or require special care or treatment because of age, mental or physical limitations.

Interconnected floor space means superimposed floor areas or parts of floor areas in which floor assemblies that are required to be fire separations are penetrated by openings that are not provided with closures.

Limiting distance means the distance from an exposing building face to a property line, the centre line of a street, lane or public thoroughfare, or to an imaginary line between 2 buildings or fire compartments on the same property, measured at right angles to the exposing building face.

Listed means equipment or materials included in a list published by a certification organization accredited by the Standards Council of Canada.

Live load means the load other than dead load to be assumed in the design of the structural members of a building. It includes loads resulting from snow, rain, wind, earthquake and those due to occupancy.

Loadbearing as applying to a building element means subjected to or designed to carry loads in addition to its own dead load, excepting a wall element subjected only to wind or earthquake loads in addition to its own dead load.

Low hazard industrial occupancy means an industrial occupancy in which the combustible content is not more than 50 kg/m^2 or 1200 MJ/m^2 of floor area.

Major occupancy means the principal occupancy for which a building or part thereof is used or intended to be used, and shall be deemed to include the subsidiary occupancies which are an integral part of the principal occupancy.

Masonry or concrete chimney means a chimney of brick, stone, concrete or masonry units constructed on site.

Means of egress means a continuous path of travel provided by a doorway, hallway, corridor, exterior passageway, balcony, lobby, stair, ramp or other egress facility or combination thereof, for the escape of persons from any point in a building, floor area, room or contained open space to an open public thoroughfare or to an exterior open space protected from fire exposure from the building and having access to an open public thoroughfare and includes exits and access to exits.

Medium hazard industrial occupancy means an industrial occupancy in which the combustible content is more than 50 kg/m² or 1 200 MJ/m² of floor area and not classified as high hazard industrial occupancy.

Mercantile occupancy means the occupancy or use of a building or part thereof for the displaying or selling of retail goods, wares or merchandise.

Metal chimney means a single-wall chimney of metal constructed on site.

Mezzanine means an intermediate floor assembly between the floor and ceiling of any room or storey and includes an interior balcony.

Noncombustible means that a material meets the acceptance criteria of CAN4-S114, "Standard Method of Test for Determination of Non-Combustibility in Building Materials."

Noncombustible construction means that type of construction in which a degree of fire safety is attained by the use of noncombustible materials for structural members and other building assemblies.

Occupancy means the use or intended use of a building or part thereof for the shelter or support of persons, animals or property.

Occupant load means the number of persons for which a building or part thereof is designed.

Open-air storey means a storey in which at least 25 per cent of the total area of its perimeter walls is open to the outdoors in a manner that will provide cross ventilation to the entire storey.

Owner means any person, firm or corporation controlling the property under consideration.

Partition means an interior wall 1 storey or part-storey in height that is not loadbearing.

Party wall means a wall jointly owned and jointly used by 2 parties under easement agreement or by right in law, and erected at or upon a line separating 2 parcels of land each of which is, or is capable of being, a separate real-estate entity.

Perched groundwater means a free standing body of water in the ground extending to a limited depth.

Pile means a slender deep foundation unit, made of materials such as wood, steel or concrete or combination thereof, which is either premanufactured and placed by driving, jacking, jetting or screwing, or cast-in-place in a hole formed by driving, excavating or boring.

Plenum means a chamber forming part of an air duct system.

Plumbing system means a drainage system, a venting system and a water system or parts thereof.

Post-disaster building means a building essential to provide services in the event of a disaster, and includes hospitals, fire stations, police stations, radio stations, telephone exchanges, power stations, electrical substations, water and sewage pumping stations and fuel depot buildings.

Private sewage disposal system means a privately owned plant for the treatment and disposal of sewage such as a septic tank with an absorption field.

Project means any construction or demolition operation.

Public corridor means a corridor that provides access to exit from more than 1 suite.

Range means a cooking appliance equipped with a cooking surface and 1 or more ovens.

Repair garage means a building or part thereof where facilities are provided for the repair or servicing of motor vehicles.

Residential occupancy means the occupancy or use of a building or part thereof by persons for whom sleeping accommodation is provided but who are not harboured or detained to receive medical care or treatment or are not involuntarily detained.

Return duct means a duct for conveying air from a space being heated, ventilated or air-conditioned back to the heating, ventilating or air-conditioning appliance.

Rock means that portion of the earth's crust which is consolidated, coherent and relatively hard and is a naturally formed, solidly bonded, mass of mineral matter which cannot readily be broken by hand.

Sanitary drainage system means a drainage system that conducts sewage.

Service room means a room provided in a building to accommodate building services, including boiler rooms, furnace rooms, incinerator rooms, garbage rooms, elevator machine rooms, janitors' closets and rooms to accommodate air-conditioning or heating appliances, pumps, compressors and electrical services.

Service space means space provided in a building to facilitate or conceal the installation of building service facilities such as chutes, ducts, pipes, shafts or wires.

Service water heater means a device for heating water for plumbing services.

Shallow foundation means a foundation unit which derives its support from soil or rock located close to the lowest part of the building which it supports.

Smoke alarm means a combined smoke detector and audible alarm device designed to sound an alarm within the room or suite in which it is located upon the detection of smoke within that room or suite.

Smoke detector means a fire detector designed to operate when the concentration of airborne combustion products exceeds a pre-determined level.

Soil means that portion of the earth's crust which is fragmentary, or such that some individual particles of a dried sample may be readily separated by agitation in water; it includes boulders, cobbles, gravel, sand, silt, clay and organic matter.

Space heater means a space-heating appliance for heating the room or space within which it is located, without the use of ducts.

Space-heating appliance means an appliance intended for the supplying of heat to a room or space directly, such as a space heater, fireplace or unit heater, or to rooms or spaces of a building through a heating system such as a central furnace or boiler.

Sprinklered means equipped with a system of automatic sprinklers.

Stage means a space designed primarily for theatrical performances with provision for quick change scenery and overhead lighting, including environmental control for a wide range of lighting and sound effects and which is traditionally, but not necessarily, separated from the audience by a proscenium wall and curtain opening.

Storage garage means a building or part thereof intended for the storage or parking of motor vehicles and which contains no provision for the repair or servicing of such vehicles.

Storage-type service water heater means a service water heater with an integral hot water storage tank.

Storey means that portion of a building which is situated between the top of any floor and the top of the floor next above it, and if there is no floor above it, that portion between the top of such floor and the ceiling above it.

Stove means an appliance intended for cooking and space heating.

Street means any highway, road, boulevard, square or other improved thoroughfare 9 m or more in width, which has been dedicated or deeded for public use, and is accessible to fire department vehicles and equipment.

Subsurface investigation means the appraisal of the general subsurface conditions at a building site by analysis of information gained by such methods as geological surveys, in situ testing, sampling, visual inspection, laboratory testing of samples of the subsurface materials and groundwater observations and measurements.

Suite means a single room or series of rooms of complementary use, operated under a single tenancy, and includes dwelling units, individual guest rooms in motels, hotels, boarding houses, rooming houses and dormitories as well as individual stores and individual or complementary rooms for business and personal services occupancies.

Supply duct means a duct for conveying air from a heating, ventilating or air-conditioning appliance to a space to be heated, ventilated or air-conditioned.

Theatre means a place of public assembly intended for the production and viewing of the performing arts or the screening and viewing of motion pictures, and consisting of an auditorium with permanently fixed seats intended solely for a viewing audience.

Unit heater means a suspended space heater with an integral air circulating fan.

Unprotected opening as applying to exposing building face means a doorway, window or opening other than one equipped with a closure having the required fire-protection rating, or any part of a wall forming part of the exposing building face that has a fire-resistance rating less than required for the exposing building face.

Vent connector as applying to heating or cooling systems means the part of a venting system that conducts the flue gases or vent gases from the flue collar of a gas appliance to the chimney or gas vent, and may include a draft control device.

Vertical service space means a shaft oriented essentially vertically that is provided in a building to facilitate the installation of building services including mechanical, electrical and plumbing installations and facilities such as elevators, refuse chutes and linen chutes.

Walkway means a covered or roofed pedestrian thoroughfare used to connect 2 or more buildings in which the least horizontal dimension of the thoroughfare is less than 9 m.

SECTION 1.4 ABBREVIATIONS

SUBSECTION 1.4.1. ABBREVIATIONS OF NAMES OF ASSOCIATIONS

1.4.1.1. The abbreviations for the names of associations in this Code shall have the meanings assigned to them in this Subsection: the addresses of such associations are shown in brackets following the name of each association.

ACNBC	Associate Committee on the National Building Code (National Research Council of Canada, Ottawa, Ontario K1A 0R6)
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers (1791 Tullie Circle N.E. Atlanta, Georgia 30329 U.S.A.)
ASTM	American Society for Testing and Materials (1916 Race Street Philadelphia, Pennsylvania 19103 U.S.A.)
CAN	National Standard of Canada designation (The number following the CAN designation represents the agency under whose auspices the standard is issued. CAN 1 designates CGA, CAN 2 designates CGSB, CAN 3 designates CSA, and CAN 4 designates ULC.)
CGA	Canadian Gas Association (55 Scarsdale Road Don Mills, Ontario M3B 2R3)
CGSB	Canadian General Standards Board (Ottawa, Ontario K1A 1G6)
CLA	Canadian Lumbermen's Association (27 Goulburn Avenue Ottawa, Ontario K1N 8C7)
CSA	Canadian Standards Association (178 Rexdale Boulevard Rexdale, Ontario M9W 1R3)
HI	Hydronics Institute (35 Russo Place Berkeley Heights. New Jersey 07922 U.S.A.)
HRAI	Heating, Refrigerating and Air-Conditioning Institute of Canada (5468 Dundas Street West Islington, Ontario M9B 6E3)

NBC National Building Code of Canada
 (National Research Council of Canada
 Ottawa, Ontario K1A 0R6)

NFPA National Fire Protection Association
 (Batterymarch Park
 Quincy, Massachusetts 02269 U.S.A.)

NLGA National Lumber Grades Authority
 (1460-1055 West Hasting, Street,
 Vancouver, British Columbia V6E 2G8)

SMACNA Sheet Metal and Air Conditioning Contractors
 National Association Inc.
 (8224 Old Courthouse Road
 Vienna, Virginia 22180 U.S.A.)

ULC Underwriters' Laboratories of Canada
 (7 Crouse Road
 Scarborough, Ontario M1R 3A9)

WCLIB West Coast Lumber Inspection Bureau
 (6980 Southwest Varns Street
 P.O. Box 23145
 Portland, Oregon 97223 U.S.A.)

WWPA Western Wood Products Association
 (1500 Yeon Building
 Portland, Oregon 97204 U.S.A.)

SUBSECTION 1.4.2. ABBREVIATIONS OF WORDS AND PHRASES

1.4.2.1. The abbreviations of words and phrases in this Code shall have the meanings assigned to them in this Subsection.

CLS	Canadian Lumber Standard
cm	centimetre(s)
db	decibel(s)
°	degree(s)
°C	degree(s) Celsius
diam	diameter
g	gram(s)
ga	gauge
h	hour(s)
Hz	hertz
in	inch(es)
Inc.	Incorporated
J	joule(s)
kg	kilogram(s)
kN	kilonewton(s)
kPa	Kilopascal(s)
kW	kilowatt(s)
L	litre(s)
lx	lux
m	metre(s)
max.	maximum
min.	minimum
min	minute(s)
MJ	megajoule(s)
mm	millimetre(s)
MPa	megapascal(s)
N	newton
N/A	not applicable
ng	nanogram(s)
No.	number(s)
nom.	nominal
o.c.	on centre
s	second(s)
temp.	temperature
T&G	tongue and groove
W	watt(s)
wt	weight

PART 2

GENERAL REQUIREMENTS

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SECTION 2.4.	PERMITS & INSPECTIONS
SECTION 2.5.	CLIMATIC DATA
SECTION 2.6.	REFERENCED DOCUMENTS
SECTION 2.7.	CONTINUATION OF ONTARIO REGULATION 583/83

PART 2 GENERAL REQUIREMENTS

SECTION 2.1 APPLICATION

SUBSECTION 2.1.1. BUILDINGS

2.1.1.1. Parts 1 and 2 apply to all buildings.

2.1.1.2.(1) Except as provided in Article 2.1.1.5. and Subsection 2.1.2., Parts 3, 4, 5 and 6 apply to

(a) all buildings used for

(i) Group A, assembly occupancies,

(ii) Group B, institutional occupancies,
and

(iii) Group F, Division 1, high hazard industrial occupancies, and

(b) all buildings exceeding 600 m² in building area or exceeding 3 storeys in building height used for

(i) Group C, residential occupancies,

(ii) Group D, business and personal services occupancies,

(iii) Group E, mercantile occupancies, and

(iv) Group F, Division 2 and 3, medium and low hazard industrial occupancies.

2.1.1.3.(1) Except as provided in Sentence 2.1.1.4.(2) and Article 2.1.1.5., Part 9 applies to buildings of 3 storeys or less in building height, having a building area not exceeding 600 m² and which are used for

(a) Group C, residential occupancies,

(b) Group D, business and personal services occupancies,

(c) Group E, mercantile occupancies, and

(d) Group F, Division 2 and 3, medium and low hazard industrial occupancies.

2.1.1.4.(1) Except as provided in Sentence (2), the Building Code applies to the design and construction of site assembled and manufactured buildings.

(2) Manufactured buildings intended for residential occupancy that are constructed in sections not wider than 4.3 m and that are designed and constructed to comply with the requirements of CSA Z240.2.1 "Structural Requirements for Mobile Homes" and CSA Z-240.8.1 "Light Duty Windows" are exempt from compliance with the Building Code.

2.1.1.5. Except for Article 4.1.1.9., a farm building is exempt from compliance with this Code.

2.1.1.6.(1) Except as provided in Sentences (2) and (3), Part 11 applies to the design and construction of existing buildings or parts of existing buildings,

(a) used or intended for Group C residential occupancies, where such buildings

(i) contain or will contain one or more dwelling units, or

(ii) are or will be boarding, lodging or rooming houses, and

(b) that have been in existence for at least five years.

(2) Notwithstanding Clause (1)(b), where a building has been in existence for at least five years but includes an addition completed less than five years previously, Part 11 may apply to the entire building.

(3) Part 11 does not apply to buildings containing dwelling units regulated under the Hotel Fire Safety Act.

2.1.1.7.(1) Except as provided in Part 11 and Subsection 3.2.9., where an existing building is extended or is subject to material alteration or repair, the Building Code is applicable only to the design and construction of the extensions and those parts of the building that are subject to the material alteration or repair.

(2) Where an existing building is moved from the original location to be installed elsewhere, the Building Code applies to changes to the design and construction of the building required as a result of moving the building.

2.1.1.8.(1) In addition to all other requirements, a building in the following designated areas shall be designed and constructed so that the annual average concentration of radon 222 does not exceed 250 millibecquerels per litre of air and the annual

average concentration of the short lived daughters of radon 222 does not exceed 0.02 working levels inside the building:

- (a) The Town of Elliot Lake in the Territorial District of Algoma,
- (b) The Township of Faraday in the County of Hastings, and
- (c) The geographic Township of Hyman in the Territorial District of Sudbury.

SUBSECTION 2.1.2. DESIGNATED STRUCTURES

2.1.2.1.(1) Part 4 applies to the following designated structures:

- (a) a retaining wall exceeding 1 m in exposed height adjacent to public property or access to a building,
- (b) the structural requirements for signs regulated by Section 3.8,
- (c) a communication tower exceeding 16.6 m above ground level,
- (d) a pedestrian bridge,
- (e) a crane runway,
- (f) an exterior storage tank and its supporting structure which is not regulated by the Gasoline Handling Act or the Energy Act, and
- (g) a dish antenna or a solar collector that is mounted on a building and has a face area equal to or greater than 5 m².

SUBSECTION 2.1.3. BUILDING SIZE DETERMINATION

2.1.3.1. Where a firewall divides a building, each portion of the building so divided shall be considered as a separate building, except as specifically modified in this Part or other Parts of this Code.

2.1.3.2.(1) Except as permitted in Sentence (2), where portions of a building are completely separated by a vertical fire separation that has a fire-resistance rating of at least 1 h and extends through all storeys and service spaces of the separate portions, each separated portion is

permitted to be considered as a separate building for the purpose of determining building height provided

- (a) each separated portion is not more than 3 storeys in building height and is used only for residential occupancies, and
- (b) the unobstructed path of travel for the fire fighter from the nearest street to one entrance of each separated portion is not more than 45 m.

(2) The vertical fire separation in Sentence (1) may terminate at the floor assembly immediately above a basement provided the basement conforms to Article 3.2.1.2.

SECTION 2.2. MATERIALS, APPLIANCES, SYSTEMS AND EQUIPMENT

SUBSECTION 2.2.1. GENERAL

2.2.1.1. All materials, appliances, systems and equipment installed to meet the requirements of this Code shall possess the necessary characteristics to perform their intended functions when installed in a building.

2.2.1.2. Unless otherwise specified, used materials, appliances and equipment may be reused when they meet the requirements of this Code for new materials and are satisfactory for the intended use.

SUBSECTION 2.2.2. BUILDING MATERIALS EVALUATION COMMISSION

2.2.2.1. The fee on an application to the Building Materials Evaluation Commission is \$200.00.

SECTION 2.3. DESIGN AND GENERAL REVIEW

SUBSECTION 2.3.1. DESIGN

2.3.1.1.(1) Except as permitted in Sentence (2), every building or part thereof described in Table 2.3.1.A. and this Article shall be designed and reviewed by an architect, professional engineer or both.

(2) An architect may provide the services within the practice of professional engineering in any building described in Table 2.3.1.A., or a professional engineer may provide the services within the practice of architecture in any building described in Table 2.3.1.A. where to do so does not constitute a substantial part of the services provided by the other profession related to the construction of the building and is necessary

(a) for the construction of the building and is incidental to the other services provided by the architect or professional engineer, or

(b) for coordination purposes.

(3) Where a building or part thereof described in Table 2.3.1.A. is designed by an architect or a professional engineer or a combination of both as required by this Section, all plans, sketches, drawings, graphic representations, specifications and other documents that are prepared by an architect, professional engineer or both and that form the basis for the issuance of a building permit or any changes thereto authorized by the chief official shall bear the signature and seal of the architect, professional engineer or both, as applicable.

(4) Where the foundations of a building are to be constructed below the level of the footings of an adjacent building and within the angle of repose of the soil, as drawn from the bottom of the footings, the foundations shall be designed by a professional engineer.

(5) The thermal design of a building in accordance with Section 9.39 shall be prepared and provided by an architect or professional engineer or a combination of both.

Table 2.3.1.A.(4)
Forming Part of Sentence 2.3.1.1.(1)

<u>Building Classification by Major Occupancy</u>	<u>Building Description</u>	<u>Design and General Review by:</u>
<u>Assembly occupancy only</u>	Every <u>building</u>	<u>Architect and professional engineer</u> ⁽¹⁾
<u>Assembly occupancy and any other major occupancy except industrial</u>	Every <u>building</u>	<u>Architect and professional engineer</u> ⁽¹⁾
<u>Institutional occupancy only</u>	Every <u>building</u>	<u>Architect and professional engineer</u> ⁽¹⁾
<u>Institutional occupancy and any other major occupancy except industrial</u>	Every <u>building</u>	<u>Architect and professional engineer</u> ⁽¹⁾
<u>Residential occupancy only</u>	Every <u>building</u> that exceeds 3 storeys in <u>building height</u>	<u>Architect and professional engineer</u> ⁽¹⁾
	Every <u>building</u> that exceeds 600 m ² in <u>gross area</u> and that contains a <u>residential occupancy</u> other than a <u>dwelling unit</u> or <u>dwelling units</u>	<u>Architect</u> ⁽²⁾
<u>Residential occupancy only</u>	Every <u>building</u> that exceeds 600 m ² in <u>gross area</u> and contains a <u>dwelling unit</u> above another <u>dwelling unit</u>	<u>Architect</u> ⁽²⁾
	Every <u>building</u> that exceeds 600 m ² in <u>building area</u> , contains 3 or more <u>dwelling units</u> and has no <u>dwelling unit</u> above another <u>dwelling unit</u>	<u>Architect</u> ⁽²⁾
<u>Residential occupancy and any other major occupancy except industrial, assembly or institutional occupancy</u>	Every <u>building</u> that exceeds 600 m ² in <u>gross area</u> or 3 storeys in <u>building height</u>	<u>Architect and professional engineer</u> ⁽¹⁾
Column 1	2	3

Table 2.3.1.A.(4) (Cont'd)

<u>Building Classification by Major Occupancy</u>	<u>Building Description</u>	<u>Design and General Review by:</u>
<u>Business and personal services occupancy only</u>	Every building that exceeds 600 m ² in <u>gross area</u> or 3 <u>storeys</u> in <u>building height</u>	<u>Architect and professional engineer</u> ⁽¹⁾
<u>Business and personal services occupancy and any other major occupancy except industrial, assembly or institutional occupancy</u>	Every building that exceeds 600 m ² in <u>gross area</u> or 3 <u>storeys</u> in <u>building height</u>	<u>Architect and professional engineer</u> ⁽¹⁾
<u>Mercantile occupancy only</u>	Every building that exceeds 600 m ² in <u>gross area</u> or 3 <u>storeys</u> in <u>building height</u>	<u>Architect and professional engineer</u> ⁽¹⁾
<u>Mercantile occupancy and any other major occupancy except industrial, assembly or institutional occupancy</u>	Every building that exceeds 600 m ² in <u>gross area</u> or 3 <u>storeys</u> in <u>building height</u>	<u>Architect and professional engineer</u> ⁽¹⁾
<u>Industrial occupancy only and where there are no subsidiary occupancies</u>	Every building that exceeds 600 m ² in <u>gross area</u> or 3 <u>storeys</u> in <u>building height</u>	<u>Architect or professional engineer</u> ⁽³⁾
<u>Industrial occupancy and one or more other major occupancies where the portion of the area occupied by one of the other major or subsidiary occupancies exceeds 600 m²</u>	The non-industrial portion of every <u>building</u>	<u>Architect and professional engineer</u> ⁽¹⁾
	The industrial portion of every <u>building</u>	<u>Architect or professional engineer</u> ⁽³⁾
<u>Industrial occupancy and one or more other major occupancies where no portion of the area occupied by one of the other major or subsidiary occupancies exceeds 600 m²</u>	Every building that exceeds 600 m ² in <u>gross area</u> or 3 <u>storeys</u> in <u>building height</u>	<u>Architect or professional engineer</u> ⁽³⁾
Column 1	2	3

Notes to Table 2.3.1.A.

- (1) An architect shall provide services within the practice of architecture and a professional engineer shall provide the services within the practice of professional engineering.
- (2) An architect may engage a professional engineer to provide services within the practice of professional engineering.
- (3) Only a professional engineer may provide services within the practice of professional engineering.
- (4) Requirements for design and general review by an architect or professional engineer or a combination of both for the construction, enlargement or alteration of a building are set out in the Architects Act, 1984 and the Professional Engineers Act, 1984.

SUBSECTION 2.3.2. GENERAL REVIEW

2.3.2.1.(1) Except as permitted in Sentence (2), a person who intends to construct or have constructed a building required to be designed by an Architect, Professional Engineer or both, shall ensure that an Architect, Professional Engineer or both are retained to undertake the general review of the construction of the building in accordance with the performance standards of the Ontario Association of Architects or the Association of Professional Engineers of Ontario, as applicable, to determine whether the construction is in general conformity with the plans, sketches, drawings, graphic representations, specifications and other documents that are prepared by an Architect, Professional Engineer or both and that form the basis for the issuance of a building permit or any changes thereto authorized by the chief official; written reports arising out of the general review shall be forwarded to the chief official by such person.

(2) An Architect or a Professional Engineer need not be retained to undertake the general review of construction of a building where the building is designed in accordance with Section 9.39.

2.3.2.2.(1) Only an Architect may carry out or provide the general review of the construction of a building

- (a) that is constructed in accordance with a design prepared or provided by an Architect, or
- (b) in relation to services that are provided by an Architect in connection with the design in accordance with which the building is constructed.

(2) Only a Professional Engineer may carry out or provide the general review of the construction of a building

- (a) that is constructed in accordance with a design prepared or provided by a professional engineer, or
- (b) in relation to services that are provided by a professional engineer in connection with the design in accordance with which the building is constructed.

2.3.2.3.(1) The applicant for a permit respecting the demolition of a building shall retain a professional engineer to undertake the general review of the project during demolition, where

- (a) the building exceeds 3 storeys in building height or 600 m² in building area,
- (b) the building structure includes pre-tensioned or post-tensioned members,
- (c) it is proposed that the demolition will extend below the level of the footings of any adjacent building and occur within the angle of repose of the soil, drawn from the bottom of such footings, or
- (d) explosives or a laser are to be used during the course of demolition.

SECTION 2.4. PERMITS AND INSPECTIONS

SUBSECTION 2.4.1. PERMITS

2.4.1.1.(1) A person is exempt from the requirement to obtain a permit under Section 5 of the Act

- (a) for the construction of a farm building where a municipality has not passed a by-law prescribing such permits for farm buildings,
- (b) for the demolition of a building located on a farm, or
- (c) for the construction or demolition of a building in territory without municipal organization.

(2) Where a permit is required for the demolition of a building in Sentence 2.3.2.3.(1), descriptions of the structural design characteristics of the building and the method of demolition shall be included in the application for a permit to demolish the building.

(3) No person shall commence demolition of a building or any part of a building before the building has been vacated by the occupants except where the safety of the occupants is not affected.

SUBSECTION 2.4.2. SITE DOCUMENTS

2.4.2.1. Where a permit has been issued pursuant to the Act, the person to whom it is issued shall have the permit or a copy thereof posted at all times during construction or demolition in a conspicuous place on the property in respect of which the permit was issued.

2.4.2.2.(1) The person in charge of the construction of the building shall keep and maintain on the site of the construction

- (a) at least one copy of drawings and specifications certified by the chief official or a person designated by the chief official to be a copy of those submitted with the application for the permit to construct the building, together with changes that are authorized by the chief official or a person designated by the chief official, and
- (b) authorization or facsimiles thereof received from the Building Materials Evaluation Commission, including specified terms and conditions.

SUBSECTION 2.4.3. OCCUPANCY OF UNFINISHED BUILDING

2.4.3.1.(1) Except as permitted in Sentence 2.4.3.2.(1), a person may occupy or permit to be occupied any building or part thereof that has not been fully completed at the date of occupation where the chief official or a person designated by the chief official has issued a permit authorizing occupation of the building or part thereof prior to its completion in accordance with Sentence (2).

(2) The chief official or a person designated by the chief official shall issue a permit authorizing occupation of a building, where

- (a) the structure of the building or part thereof is completed to the roof,
- (b) the enclosing walls of the building or part thereof are completed to the roof,
- (c) the walls enclosing the space to be occupied are completed, including balcony guards,

- (d) all required fire separations and closures are completed on all storeys to be occupied,
- (e) all required exits are completed and fire separated including all doors, door hardware, self-closing devices, balustrades and hand-rails from the uppermost floor to be occupied down to grade level and below if an exit connects with lower storeys,
- (f) all shafts including closures are completed to the floor-ceiling assembly above the storey to be occupied and have a temporary fire separation at such assembly,
- (g) measures have been taken to prevent access to parts of the building and site that are incomplete or still under construction,
- (h) floors, halls, lobbies and required means of egress are kept free of loose materials and other hazards,
- (i) if service rooms should be in operation, required fire separations are completed and all closures installed,
- (j) all water supply, drain, waste and vent systems are complete and operational for the storeys to be occupied,
- (k) required lighting in corridors, stairways and exits is completed and operational up to and including all storeys to be occupied,
- (l) required standpipe, sprinkler and fire alarm systems are complete and operational up to and including all storeys to be occupied, together with required pumper connections for such standpipes and sprinklers,
- (m) required fire extinguishers have been installed on all storeys to be occupied,
- (n) main garbage rooms, chutes and ancillary services thereto are completed to storeys to be occupied, and
- (o) required fire fighting access routes have been provided and are accessible.

2.4.3.2.(1) A person may occupy or permit to be occupied a building intended for residential occupancy that has not been fully completed at the date of occupation provided that

(a) the building

(i) is not more than 3 storeys in building height,

(ii) has not more than 1 dwelling unit above another dwelling unit,

(iii) has not more than 2 dwelling units sharing a common means of egress, and

(iv) has no accommodation for tourists,

(b) the following building components and systems are complete and operational:

(i) required exits, handrails and guards, fire alarm and detection systems, and fire separations, and

(ii) water supply, sewage disposal, lighting and heating systems, and

(c) where applicable, the building conforms to Article 2.1.1.8.

2.4.3.3. Where a person has occupied or permitted the occupancy of a building under this Subsection, such person shall notify the chief official forthwith upon completion of the building.

SUBSECTION 2.4.4. FIRE DEPARTMENT INSPECTION

2.4.4.1. Where the council of a municipality assigns to an inspector who is the chief of the fire department of the municipality specific responsibility for the enforcement of any portion of this Code respecting fire safety matters, the chief official shall not issue a permit to construct a building unless the inspector approves as complying with such portion of this Code the drawings submitted with the application for the permit.

SUBSECTION 2.4.5. NOTICES TO CHIEF OFFICIAL

2.4.5.1.(1) Where the council of a municipality passes a by-law pursuant to Clause 5(2)(e) of the Act, the person to whom a permit has been issued shall notify the chief official,

(a) of the commencement of the construction of the building,

(b) of the readiness to construct the footings,

- (c) of the substantial completion of the footings and foundations,
- (d) where the building is within the scope of Part 9, of the substantial completion of
 - (i) structural framing,
 - (ii) insulation and vapour barriers, and
 - (iii) ductwork and piping for heating and air-conditioning systems,
- (e) where the building is within the scope of parts of this Code other than Part 9, of the substantial completion of
 - (i) structural framing of each storey,
 - (ii) insulation and vapour barriers, and
 - (iii) roughing-in of heating, ventilation, air-conditioning and air-contaminant extraction equipment,
- (f) of the commencement of the construction of
 - (i) masonry fireplaces and masonry chimneys,
 - (ii) factory-built fireplaces and allied chimneys,
 - (iii) stoves, ranges, spaceheaters and add-on furnaces using solid fuels and allied chimneys,
- (g) of the substantial completion of all required fire separations and closures and all fire protection systems including standpipe, sprinkler, fire alarm and emergency lighting systems,
- (h) of the substantial completion of interior finishes and heating, ventilating, air-conditioning and air-contaminant extraction equipment,
- (i) of the substantial completion of exterior cladding, fire access routes and site grading, and
- (j) of the completion and availability of drawings of the building as constructed.

SECTION 2.5. CLIMATIC DATA

SUBSECTION 2.5.1.

2.5.1.1. The climatic and seismic values required for the design of buildings under this Code shall be in conformance with the values provided in Table 2.5.1.A.

Table 2.5.1.A.
Forming Part of Article 2.5.1.1.

DESIGN DATA FOR SELECTED LOCATIONS IN ONTARIO

Location	Design Temperature				Degree Days Below 18°C	15 Min Rain mm	One Day Rain mm	Ann Tot Pcpn mm	Gnd Snow Load kPa	Hourly Wind Pressures			Seismic Data		
	January		July 21 22							1 10. kPa	1 30. kPa	1 100 kPa	Z ₁	Z ₂	Zonal velocity ratio v
	2° °C	1° °C	Dry °C	Wet °C											
Ailsa Craig	-17	-19	30	23	4000	25	89	920	1.9	0.40	0.50	0.62	0	0	0.00
Ajax	-20	-22	30	23	4080	23	76	800	2.1	0.43	0.52	0.64	1	1	0.05
Alexandria	-24	-26	30	23	4700	28	76	940	2.8	0.30	0.37	0.45	4	2	0.10
Alliston	-23	-25	29	23	4400	28	114	740	3.2	0.22	0.29	0.38	1	0	0.05
Almonte	-26	-28	30	23	4774	25	76	736	2.9	0.30	0.37	0.46	4	2	0.10
Armstrong	-39	-42	28	21	6991	23	99	738	3.8	0.21	0.25	0.29	0	0	0.00
Arnprior	-27	-29	30	23	4791	23	76	746	2.9	0.27	0.34	0.42	4	2	0.10
Atikokan	-34	-37	29	22	6209	25	93	724	2.9	0.21	0.25	0.29	0	0	0.00
Aurora	-21	-23	30	23	4325	28	102	800	2.3	0.30	0.39	0.50	1	0	0.05
Bancroft	-27	-29	29	22	4919	25	83	880	3.4	0.23	0.29	0.36	2	1	0.05
Barrie	-24	-26	29	22	4575	28	127	950	2.9	0.21	0.29	0.39	1	1	0.05
Barriehead	-22	-24	27	23	4200	23	114	870	2.2	0.35	0.43	0.52	2	1	0.05
Beaverton	-24	-26	30	22	4400	28	140	860	2.5	0.24	0.32	0.42	1	1	0.05
Belleville	-22	-24	29	23	4129	23	106	855	2.0	0.32	0.39	0.48	1	1	0.05
Belmont	-17	-19	30	23	4000	25	89	980	1.8	0.35	0.45	0.58	0	0	0.00
Big Trout Creek	-27	-29	28	21	5300	28	89	940	3.0	0.24	0.29	0.36	2	1	0.05
Bowmanville	-20	-22	30	23	4220	23	76	803	2.1	0.46	0.55	0.66	1	1	0.05
Bracebridge	-26	-28	29	22	4800	25	114	1020	3.2	0.19	0.25	0.33	1	1	0.05
Bradford	-23	-25	30	23	4241	28	114	716	2.6	0.24	0.32	0.42	1	0	0.05
Brampton	-19	-21	30	23	4321	28	178	816	2.0	0.32	0.39	0.49	1	0	0.05
Branford	-17	-19	30	23	3922	23	103	746	2.0	0.31	0.37	0.44	1	0	0.05
Brighton	-21	-23	29	23	4200	23	76	830	2.0	0.42	0.50	0.60	1	1	0.05
Brookville	-23	-25	29	23	4230	25	89	974	2.4	0.32	0.39	0.49	3	1	0.05
Brooklin	-20	-22	30	23	4250	23	76	840	2.2	0.38	0.48	0.59	1	1	0.05
Burks Falls	-26	-28	29	21	5293	25	102	1066	3.3	0.20	0.26	0.34	1	1	0.05
Burlington	-17	-19	31	23	3818	23	77	777	1.6	0.36	0.43	0.51	1	0	0.05
Caledonia	-17	-19	30	23	3850	23	104	913	2.2	0.31	0.37	0.44	1	0	0.05
Cambridge	-18	-20	29	23	4100	25	108	899	2.5	0.26	0.32	0.39	1	0	0.05
Campbellford	-23	-26	30	23	4400	25	111	811	2.6	0.29	0.37	0.47	1	1	0.05
Camp Borden	-23	-25	29	22	4550	28	114	810	3.2	0.21	0.29	0.39	1	0	0.05
Cannington	-24	-26	30	23	4550	28	127	890	2.5	0.24	0.32	0.42	1	1	0.05
Carleton Place	-25	-27	30	23	4700	25	69	787	2.8	0.30	0.37	0.46	4	2	0.10
Cavan	-22	-25	30	23	4425	28	76	770	2.6	0.31	0.39	0.50	1	1	0.05
Centralia	-17	-19	30	23	4041	25	80	1033	2.0	0.37	0.48	0.60	0	0	0.00
Chapleau	-35	-38	27	21	6214	23	104	834	3.5	0.19	0.25	0.31	0	0	0.00
Chatham	-16	-18	31	24	3607	28	107	808	1.4	0.32	0.39	0.48	0	0	0.00
Chelmsford	-28	-30	29	21	5451	25	76	860	3.2	0.29	0.39	0.53	1	0	0.05
Chesley	-19	-21	29	22	4450	28	76	1120	3.6	0.33	0.43	0.55	1	0	0.05
Clinton	-17	-19	29	23	4100	23	89	950	2.5	0.37	0.48	0.60	0	0	0.00
Cobouconk	-25	-27	29	22	4750	25	127	909	2.9	0.22	0.29	0.37	1	1	0.05
Cobourg	-21	-23	30	23	4241	23	76	822	2.1	0.46	0.55	0.65	1	1	0.05
Cochrane	-34	-36	29	21	6398	20	87	885	3.3	0.26	0.32	0.39	1	0	0.05
Colborne	-21	-23	29	23	4050	23	76	830	2.1	0.44	0.52	0.62	1	1	0.05
Collingwood	-22	-24	29	22	4242	28	128	858	3.8	0.25	0.34	0.45	1	0	0.05
Cornwall	-23	-25	30	23	4418	28	71	928	2.5	0.30	0.37	0.46	4	2	0.10
Corunna	-16	-18	31	23	3800	23	89	800	1.5	0.35	0.43	0.52	0	0	0.00
Deep River	-29	-32	30	22	5125	23	89	790	2.6	0.20	0.24	0.28	4	2	0.10
Deseronto	-22	-24	28	23	4100	23	89	870	2.1	0.32	0.39	0.48	1	1	0.05
Dorchester	-18	-20	30	23	4050	28	89	890	1.9	0.33	0.43	0.55	0	0	0.00
Dorion	-33	-35	28	21	5900	20	76	685	3.3	0.25	0.29	0.34	0	0	0.00
Column 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Table 2.5.1.A. (Cont'd)

Location	Design Temperature				Degree-Days Below 18°C	15 Min Rain, mm	One Day Rain, mm	Ann Tot Pcpn, mm	Gnd Snow Load, kPa	Hourly Wind Pressures			Seismic Data		
	January		July 21 27°							1:10, kPa	1:30, kPa	1:00, kPa	Z _s	Z _e	Zonal velocity ratio, v
	21-27, °C	1%, °C	Dry, °C	Wet, °C											
Dresden	-16	-18	31	24	3738	28	76	765	1.5	0.32	0.39	0.48	0	0	0.00
Dryden	-34	-36	27	22	6087	25	114	698	3.0	0.21	0.25	0.29	0	0	0.00
Dunbarton	-19	-21	30	23	4250	23	102	780	2.1	0.43	0.52	0.64	1	1	0.05
Dunnville	-15	-17	30	24	3851	23	102	905	1.8	0.33	0.39	0.45	1	0	0.05
Durham	-20	-22	29	22	4671	28	86	1040	3.8	0.31	0.39	0.50	1	0	0.05
Dutton	-16	-18	31	24	3800	28	89	870	1.6	0.34	0.43	0.53	0	0	0.00
Earlton	-33	-36	30	21	5915	23	99	822	3.3	0.32	0.40	0.51	1	1	0.05
Edison	-34	-36	28	22	6050	25	89	680	3.1	0.20	0.24	0.28	0	0	0.00
Elmvale	-24	-26	29	22	4300	28	127	900	3.5	0.24	0.32	0.42	1	1	0.05
Embro	-18	-20	29	23	4200	28	89	890	2.4	0.33	0.43	0.54	0	0	0.00
Englehart	-33	-36	30	21	5900	23	87	892	3.3	0.29	0.37	0.47	1	1	0.05
Espanola	-25	-27	28	21	4950	23	89	840	3.0	0.28	0.37	0.48	1	0	0.05
Exeter	-17	-19	30	23	4101	25	89	962	2.1	0.37	0.48	0.60	0	0	0.00
Fenelon Falls	-25	-27	30	23	4650	25	133	859	2.8	0.25	0.32	0.41	1	1	0.05
Fergus	-20	-22	29	23	4615	33	118	880	3.8	0.26	0.32	0.40	1	0	0.05
Fontinell	-15	-17	30	23	3700	23	102	870	2.4	0.33	0.39	0.46	1	0	0.05
Forest	-16	-18	31	23	3839	23	87	834	1.8	0.39	0.48	0.58	0	0	0.00
Fort Erie	-15	-17	30	24	3707	23	102	995	2.2	0.36	0.43	0.50	2	0	0.05
Fort Frances	-33	-35	29	22	5624	25	114	696	2.8	0.21	0.25	0.29	0	0	0.00
Gananoque	-22	-24	28	23	4150	23	89	870	2.3	0.35	0.43	0.52	2	1	0.05
Georgetown	-19	-21	30	23	4355	28	128	837	2.4	0.27	0.34	0.42	1	0	0.05
Geraldton	-35	-38	28	21	6753	20	65	697	3.5	0.20	0.24	0.28	0	0	0.00
Glencoe	-16	-18	31	24	4000	28	66	850	1.6	0.31	0.39	0.49	0	0	0.00
Goderich	-16	-18	29	23	3900	23	84	910	2.5	0.40	0.50	0.62	0	0	0.00
Gore Bay	-23	-25	29	21	4930	23	92	866	2.7	0.30	0.36	0.43	0	0	0.00
Graham	-37	-40	29	22	6626	23	62	817	3.3	0.21	0.25	0.29	0	0	0.00
Gravenhurst	-26	-28	29	22	4800	25	114	1020	3.1	0.19	0.25	0.33	1	1	0.05
Grimsby	-16	-18	30	23	3618	23	123	876	1.7	0.36	0.43	0.50	1	0	0.05
Guelph	-19	-21	29	23	4304	28	103	833	2.6	0.25	0.30	0.36	1	0	0.05
Guthrie	-24	-26	29	22	4520	28	127	870	2.7	0.21	0.29	0.39	1	1	0.05
Hagersville	-16	-18	30	23	3987	25	283	842	1.7	0.33	0.39	0.46	1	0	0.05
Haileybury	-32	-35	30	21	5427	23	65	849	3.2	0.32	0.39	0.49	2	1	0.05
Haliburton	-27	-29	29	22	4993	25	103	971	3.5	0.19	0.25	0.31	1	1	0.05
Hamilton	-17	-19	31	23	3827	23	117	799	1.6	0.36	0.43	0.50	1	0	0.05
Hanover	-19	-21	30	22	4340	28	76	877	3.6	0.34	0.43	0.54	1	0	0.05
Hastings	-23	-26	30	23	4400	28	89	790	2.7	0.29	0.37	0.47	1	1	0.05
Hawkesbury	-25	-27	30	23	4800	23	89	961	3.0	0.31	0.37	0.45	4	2	0.10
Hearst	-34	-36	28	21	6500	20	63	846	2.9	0.20	0.25	0.32	0	0	0.00
Honey Harbour	-24	-26	29	22	4400	23	127	950	3.8	0.25	0.34	0.45	1	1	0.05
Homepayne	-37	-40	28	21	6545	20	83	734	2.7	0.19	0.25	0.31	0	0	0.00
Huntsville	-26	-29	29	22	4780	25	104	971	4.0	0.19	0.25	0.33	1	1	0.05
Ingersoll	-18	-20	30	23	4000	28	89	890	2.0	0.33	0.43	0.54	0	0	0.00
Ironquios Falls	-33	-36	29	21	6200	20	63	780	3.4	0.30	0.37	0.45	1	0	0.05
Jarvis	-16	-18	30	23	3875	28	102	850	1.7	0.33	0.39	0.47	1	0	0.05
Jelliffe	-36	-39	28	21	6600	20	76	710	3.5	0.21	0.25	0.29	0	0	0.00
Column 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Table 2.5.1.A. (Cont'd)

Location	Design Temperature				Degree-Days Below 18°C	15 Min Rain mm	One Day Rain mm	Ann Tot Pcpn mm	Gnd Snow Load kPa	Hourly Wind Pressures			Seismic Data		
	January		July 21/2							1 10. kPa	1 30. kPa	1 100. kPa	Z _a	Z _s	Zonal velocity ratio v
	21/2 °C	1% °C	Dry °C	Wet °C											
Kapuskasing	-33	-35	28	21	6438	20	80	858	2.9	0.23	0.28	0.34	0	0	0.00
Kemptville	-25	-27	30	23	4622	25	73	867	2.7	0.30	0.37	0.46	4	2	0.10
Kenora	-33	-36	28	22	5938	25	128	623	3.1	0.20	0.24	0.28	0	0	0.00
Killaloe	-28	-31	30	22	5082	23	62	674	2.8	0.24	0.29	0.36	3	1	0.05
Kincardine	-17	-19	28	22	4100	23	76	890	3.7	0.40	0.50	0.62	0	0	0.00
Kingston	-22	-24	27	23	4251	23	119	870	2.2	0.35	0.43	0.52	2	1	0.05
Kinmount	-26	-28	29	22	4800	25	102	950	3.1	0.20	0.26	0.34	1	1	0.05
Kirkland Lake	-33	-36	30	21	6113	20	97	856	3.3	0.29	0.37	0.46	1	1	0.05
Kitchener	-19	-21	29	23	4146	28	175	897	2.9	0.27	0.34	0.42	1	0	0.05
Lakefield	-24	-26	30	23	4550	28	89	770	2.9	0.27	0.34	0.43	1	1	0.05
Lansdowne House	-39	-41	28	21	7199	18	78	666	3.2	0.24	0.29	0.35	0	0	0.00
Leamington	-15	-17	31	24	3556	28	106	816	1.1	0.35	0.43	0.52	0	0	0.00
Lindsay	-24	-26	30	23	4513	25	97	856	2.7	0.26	0.34	0.43	1	1	0.05
Lions Head	-19	-21	27	22	4490	25	76	890	3.3	0.33	0.43	0.54	1	0	0.00
Listowel	-19	-21	29	23	4811	30	144	951	3.8	0.34	0.43	0.53	1	0	0.05
London	-18	-20	30	23	4133	28	83	909	1.9	0.36	0.48	0.61	0	0	0.00
Lucan	-17	-19	30	23	4150	25	118	927	2.0	0.39	0.50	0.63	0	0	0.00
Maitland	-23	-25	29	23	4200	25	76	960	2.4	0.32	0.39	0.49	3	1	0.05
Markdale	-20	-22	29	22	4700	28	76	1030	4.0	0.29	0.37	0.47	1	0	0.05
Martin	-36	-39	29	22	6248	25	114	751	3.2	0.21	0.25	0.29	0	0	0.00
Matheson	-33	-36	29	21	6250	20	76	830	3.4	0.40	0.37	0.46	1	1	0.05
Mattawa	-29	-31	30	22	5300	23	89	830	2.7	0.24	0.29	0.35	3	1	0.05
Midland	-23	-26	29	22	4257	25	96	1035	3.8	0.25	0.34	0.45	1	1	0.05
Milton	-18	-20	30	23	4138	25	127	875	2.2	0.32	0.39	0.48	1	0	0.05
Milverton	-19	-21	29	23	4550	30	76	980	3.4	0.31	0.39	0.49	1	0	0.05
Minden	-26	-29	29	22	4967	25	94	971	3.2	0.19	0.25	0.31	1	1	0.05
Mississauga	-18	-20	30	23	4000	25	140	760	1.8	0.37	0.45	0.55	1	0	0.05
Mitchell	-18	-20	29	23	4519	28	72	840	3.0	0.35	0.45	0.57	0	0	0.00
Moosonee	-36	-38	28	21	7011	18	63	728	2.8	0.19	0.24	0.29	0	0	0.00
Morrisburg	-23	-25	30	23	4550	25	114	928	2.5	0.30	0.37	0.46	4	2	0.10
Mount Forest	-21	-23	29	22	4694	30	84	964	4.0	0.29	0.37	0.47	1	0	0.05
Muskoka Airport	-26	-28	29	22	4911	25	115	1009	3.1	0.19	0.25	0.33	1	1	0.05
Nakina	-35	-37	28	21	6816	20	70	811	3.1	0.20	0.24	0.28	0	0	0.00
Napanee	-22	-24	28	23	4150	23	89	870	2.2	0.32	0.39	0.48	2	1	0.05
Newcastle	-20	-22	30	23	4200	23	76	810	2.1	0.46	0.55	0.65	1	1	0.05
New Liskeard	-32	-35	30	21	5664	23	82	749	3.2	0.31	0.39	0.49	2	1	0.05
Newmarket	-22	-24	30	23	4395	28	102	797	2.4	0.26	0.34	0.44	1	1	0.05
Niagara Falls	-16	-18	30	23	3662	23	95	942	2.0	0.33	0.39	0.47	2	0	0.05
North Bay	-28	-30	28	21	4990	28	96	930	2.7	0.26	0.31	0.37	2	1	0.05
Norwood	-24	-26	30	23	4531	28	89	785	2.8	0.29	0.37	0.47	1	1	0.05
Oakville	-18	-20	30	23	3915	23	74	799	1.7	0.37	0.45	0.54	1	0	0.05
Orangeville	-21	-23	29	23	4775	30	101	789	3.6	0.25	0.32	0.41	1	0	0.05
Orillia	-25	-27	29	22	4690	25	147	907	2.5	0.19	0.26	0.35	1	1	0.05
Oshawa	-19	-21	30	23	3968	23	76	864	2.1	0.43	0.52	0.64	1	1	0.05
Ottawa	-25	-27	30	23	4634	23	93	846	2.9	0.30	0.37	0.46	4	2	0.10
Owen Sound	-19	-21	29	22	4236	28	138	1024	3.8	0.33	0.43	0.55	1	0	0.05
Pagwa River	-34	-36	28	21	6595	20	80	902	3.2	0.19	0.25	0.31	0	0	0.00
Paris	-17	-19	30	23	4025	23	89	860	2.2	0.31	0.37	0.45	1	0	0.05
Parkhill	-16	-18	31	23	3900	23	89	860	1.9	0.40	0.50	0.61	0	0	0.00
Parry Sound	-24	-26	28	21	4730	23	123	1094	3.6	0.24	0.34	0.46	1	1	0.05
Pembroke	-28	-31	30	22	4873	23	103	770	2.6	0.22	0.26	0.32	4	2	0.10
Penetanguishene	-23	-26	29	22	4275	25	127	1025	3.8	0.25	0.34	0.45	1	1	0.05
Perth	-25	-27	30	23	4650	25	76	920	2.8	0.29	0.37	0.46	3	1	0.05
Peterawa	-29	-31	30	22	5160	23	119	800	2.6	0.19	0.24	0.29	4	2	0.10
Peterborough	-23	-25	30	23	4411	28	87	793	2.8	0.29	0.37	0.47	1	1	0.05
Petrolia	-16	-18	31	24	3824	25	76	873	1.6	0.35	0.43	0.52	0	0	0.00
Pictou	-21	-23	29	23	3999	23	76	947	2.0	0.37	0.45	0.54	1	1	0.05
Plattsville	-18	-20	29	23	4150	28	89	920	2.8	0.30	0.37	0.46	1	0	0.05
Pont Alexander	-29	-32	30	22	5150	23	89	790	2.6	0.20	0.24	0.28	4	2	0.10
Column 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Table 2.5.1.A. (Cont'd)

Location	Design Temperature				Degree-Days Below 18°C	15 Min Rain mm	One Day Rain mm	Ann Tot Pcpn mm	Gnd Snow Load kPa	Hourly Wind Pressures			Seismic Data		
	January		July 21 24							1/10, kPa	1/30, kPa	1/100, kPa	Z _s	Z _h	Zonal velocity ratio, v
	24/24, °C	14/1, °C	Dry, °C	Wet, °C											
Porcupine	-34	-36	30	21	6049	18	76	836	3.4	0.27	0.34	0.42	1	0	0.05
Port Burwell	-15	-17	30	24	4050	25	102	940	1.6	0.34	0.43	0.53	0	0	0.00
Port Colborne	-15	-17	30	24	1707	23	102	985	2.6	0.37	0.43	0.50	1	0	0.05
Port Credit	-18	-20	30	23	3900	25	140	760	1.8	0.37	0.45	0.55	1	0	0.05
Port Dover	-15	-17	30	24	3881	25	102	948	1.7	0.36	0.43	0.51	1	0	0.05
Port Elgin	-17	-19	28	22	4240	23	76	860	4.2	0.40	0.50	0.62	1	0	0.05
Port Hope	-21	-23	30	23	4044	23	76	801	2.1	0.46	0.55	0.65	1	1	0.05
Port Perry	-22	-24	30	23	4250	25	89	800	2.3	0.31	0.39	0.50	1	1	0.05
Port Stanley	-15	-17	31	24	4075	25	84	902	1.6	0.34	0.43	0.53	0	0	0.00
Prescott	-23	-25	29	23	4200	25	76	970	2.4	0.32	0.39	0.49	3	2	0.10
Princeton	-17	-19	29	23	4000	25	89	860	2.3	0.30	0.37	0.46	1	0	0.05
Raith	-35	-37	28	22	6490	20	76	750	3.4	0.21	0.25	0.29	0	0	0.00
Red Lake	-34	-36	28	22	6350	18	110	589	3.5	0.22	0.26	0.31	0	0	0.00
Renfrew	-27	-30	30	23	4912	23	76	780	2.9	0.26	0.32	0.39	4	2	0.10
Ridgeway	-15	-17	30	24	3650	28	102	990	2.2	0.37	0.43	0.50	2	0	0.05
Rockland	-26	-28	30	23	4800	23	89	900	2.9	0.30	0.37	0.45	4	2	0.10
St Catharines	-16	-18	30	23	3664	23	77	807	1.7	0.36	0.43	0.50	1	0	0.05
St Marys	-18	-20	30	23	4200	28	89	970	2.5	0.35	0.45	0.58	0	0	0.00
St Thomas	-16	-18	31	23	3985	25	105	912	1.7	0.33	0.43	0.54	0	0	0.00
Sarnia	-16	-18	31	23	3953	23	98	890	1.6	0.35	0.43	0.52	0	0	0.00
Sault Ste. Marie	-25	-28	29	21	4943	25	117	973	3.0	0.32	0.37	0.43	0	0	0.00
Schreiber	-35	-38	27	21	6129	20	93	860	2.5	0.25	0.29	0.34	0	0	0.00
Seaford	-17	-19	30	23	4300	25	89	910	2.6	0.37	0.48	0.60	0	0	0.00
Simcoe	-17	-19	30	23	3926	28	115	934	1.7	0.33	0.39	0.47	1	0	0.05
Sioux Lookout	-34	-36	28	22	6278	28	116	713	2.9	0.21	0.25	0.29	0	0	0.00
Smiths Falls	-25	-27	30	23	4448	28	76	782	2.7	0.29	0.37	0.46	3	2	0.10
Smithville	-16	-18	30	23	3750	23	114	900	2.0	0.33	0.39	0.46	1	0	0.05
Smooth Rock Falls	-34	-36	29	21	6400	20	63	850	3.1	0.24	0.29	0.36	1	0	0.05
Southampton	-17	-19	28	22	4236	23	88	866	4.2	0.38	0.48	0.59	1	0	0.05
South Porcupine	-34	-36	30	21	6200	18	76	820	3.4	0.27	0.34	0.42	1	0	0.05
South River	-27	-29	28	21	5280	28	89	950	3.1	0.23	0.29	0.36	1	1	0.05
Stirling	-23	-25	30	23	4464	25	86	783	2.3	0.28	0.36	0.46	1	1	0.05
Stratford	-18	-20	29	23	4429	28	126	1046	3.1	0.33	0.43	0.54	0	0	0.05
Strathroy	-17	-19	31	23	3943	25	76	894	1.8	0.36	0.45	0.57	0	0	0.05
Streetsville	-18	-20	30	23	4080	25	140	810	1.9	0.35	0.43	0.52	1	0	0.05
Sturgeon Falls	-27	-29	29	21	5200	28	89	850	2.8	0.25	0.32	0.40	1	1	0.05
Sudbury	-28	-30	29	21	5043	25	112	794	3.0	0.29	0.40	0.55	1	1	0.05
Sundridge	-27	-29	28	21	5250	28	102	950	3.2	0.23	0.29	0.37	2	1	0.05
Tavistock	-18	-20	29	23	4450	28	89	950	2.9	0.34	0.43	0.53	1	0	0.05
Temagami	-30	-33	30	21	5300	25	89	870	3.2	0.27	0.34	0.42	2	1	0.05
Thamesford	-18	-20	30	23	4200	28	89	975	2.0	0.33	0.43	0.55	0	0	0.00
Thedford	-16	-18	31	23	3850	23	89	840	1.9	0.41	0.50	0.61	0	0	0.00
Thunder Bay	-31	-33	28	21	5673	20	98	712	3.4	0.25	0.29	0.34	0	0	0.00
Tilsonburg	-17	-19	30	23	4050	25	102	914	1.8	0.31	0.39	0.50	0	0	0.00
Timmins	-34	-36	30	21	6225	18	133	862	3.4	0.25	0.32	0.40	1	0	0.05
Toronto	-18	-20	31	23	3646	25	121	801	1.8	0.39	0.48	0.58	1	0	0.05
Trenton	-21	-23	29	23	4102	23	97	855	2.0	0.35	0.43	0.52	1	1	0.05
Trout Lake	-38	-40	25	20	7699	13	84	581	3.9	0.33	0.39	0.46	0	0	0.00
Uxbridge	-22	-24	30	23	4483	25	83	800	2.3	0.29	0.37	0.48	1	1	0.05
Vanier	-25	-27	30	23	4600	23	89	875	2.9	0.30	0.37	0.46	4	2	0.10
Vitona	-15	-17	30	24	3800	25	114	900	1.7	0.35	0.43	0.52	1	0	0.05
Walkerton	-18	-20	30	22	4310	28	125	962	3.5	0.35	0.45	0.57	1	0	0.05
Wallaceburg	-16	-18	31	24	3658	28	100	760	1.4	0.32	0.39	0.48	0	0	0.00
Waterloo	-19	-21	29	23	4146	28	102	895	2.9	0.27	0.34	0.42	1	0	0.05
Watford	-16	-18	31	24	3850	25	76	880	1.7	0.34	0.43	0.53	0	0	0.00
Wawa	-35	-38	26	21	5756	20	100	1030	3.0	0.24	0.28	0.33	0	0	0.00
Welland	-15	-17	30	23	3733	23	118	938	2.5	0.33	0.39	0.47	1	0	0.00
West Lorne	-16	-18	31	24	3800	28	102	870	1.5	0.34	0.43	0.53	0	0	0.00
Whitby	-20	-22	30	23	4080	23	76	840	2.1	0.43	0.52	0.64	1	1	0.05
White River	-39	-42	28	21	6479	20	102	823	2.5	0.20	0.24	0.28	0	0	0.00
Winton	-18	-20	28	22	4486	25	105	965	3.3	0.33	0.43	0.55	1	0	0.05
Windsor	-16	-18	31	24	3622	28	78	849	1.1	0.29	0.36	0.44	0	0	0.00
Wingham	-18	-20	30	23	4250	28	89	1040	3.6	0.35	0.45	0.57	0	0	0.00
Woodstock	-18	-20	29	23	4131	28	132	862	2.4	0.31	0.39	0.50	1	0	0.05
Wyoming	-16	-18	31	24	3800	25	76	880	1.6	0.35	0.43	0.52	0	0	0.00
Column 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

SECTION 2.6. REFERENCED DOCUMENTS

SUBSECTION 2.6.1. APPLICATION

2.6.1.1. The provisions of referenced documents in this Code apply only to the extent that they relate to buildings or to structures designated in Subsection 2.1.2.

SUBSECTION 2.6.2. CONFLICTING REQUIREMENTS

2.6.2.1. In the case of conflict between the provisions of this Code and those of a referenced document, the provisions of this Code shall govern.

SUBSECTION 2.6.3. EFFECTIVE DATE

2.6.3.1. Unless otherwise specified herein, the documents referenced in this Code shall include all amendments, revisions and supplements effective to January 1, 1986.

2.6.3.2. Where documents are referenced in this Code, they shall be in the editions designated in Column 2 of Table 2.6.3.A.

SECTION 2.7. CONTINUATION OF ONTARIO REGULATION 583/83 AS AMENDED BY ONTARIO REGULATION 549/84

SUBSECTION 2.7.1. GENERAL

2.7.1.1.(1) Notwithstanding the revocation of Ontario Regulation 583/83, that Regulation continues in force in respect of construction

- (a) for which a permit has been issued before this Regulation comes into force, or
- (b) for which the working drawings, plans and specifications are substantially completed before this Regulation comes into force, and for which an application for a permit under Ontario Regulation 583/83 is made within three months after that date,

on condition that the construction is commenced within six months after the permit is issued.

Table 2.6.3.A.
Forming Part of Article 2.6.3.2.

DOCUMENTS REFERENCED IN THE ONTARIO BUILDING CODE			
Issuing Agency	Document Number	Title of Document	Code Reference
ANSI	B36.10-1979	Welded and Seamless Wrought Steel Pipe	3.2.5.4.(47)
ASTM	A120-84	Pipe, Steel, Black and Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless, for Ordinary Uses	3.2.5.4.(47)
ASTM	A252-82	Welded and Seamless Steel Pipe Piles	4.2.3.8.
ASTM	A283-84	Low and Intermediate Tensile Strength Carbon Steel Plates, Shapes, and Bars	4.2.3.8.
ASTM	A525-83	Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process	9.3.3.2.
ASTM	A570-85	Hot-Rolled Carbon Steel Sheet and Strip, Structural Quality	4.2.3.8.
ASTM	A611-85	Steel, Cold-Rolled Sheet, Carbon Structural	4.2.3.8.
ASTM	B75-84	Seamless Copper Tube	3.2.5.4.(47)
ASTM	B251-84	General Requirements for Wrought Seamless Copper and Copper-Alloy Tube	3.2.5.4.(47)
ASTM	C4-62 (1981)	Clay Drain Tile	9.14.3.1.
ASTM	C64-72 (1977)	Refractories for Incinerators and Boilers	9.21.3.4.
ASTM	C126-84	Ceramic Glazed Structural Clay Facing Tile, Facing Brick, and Solid Masonry Units	9.20.2.1.
ASTM	C212-60 (1981)	Structural Clay Facing Tile	9.20.2.1.
ASTM	C315-78c	Clay Flue Linings	9.21.3.3.
Col. 1	2	3	4

Table 2.6.3.A. (Cont'd)

Issuing Agency	Document Number	Title of Document	Code Reference
ASTM	C411-82	Hot-Surface Performance of High-Temperature Thermal Insulation	6.2.3.6.(3) 6.2.9.4.(2)(b)
ASTM	C412M-83	Concrete Drain Tile	9.14.3.1.
ASTM	C444M-1980	Perforated Concrete Pipe	9.14.3.1.
ASTM	C700-78a (1983)	Vitrified Clay Pipe, Extra Strength, Standard Strength and Perforated	9.14.3.1.
ASTM	C1002-83	Steel Drill Screws for the Application of Gypsum Board	9.25.1.4.
ASTM	D374-79	Thickness of Solid Electircal Insulation	3.8.4.1.
ASTM	D568-77	Rate of Burning and/or Extent and Time of Burning of Flexible Plastics in a Vertical Position	3.8.4.1.
ASTM	D635-81	Rate of Burning and/or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position	3.8.4.1.
ASTM	E90-83	Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions	9.11.1.1.
ASTM	E283-84	Rate of Air Leakage through Exterior Windows, Curtan Walls	9.6.4.7. 9.7.1.9. 9.39.6.1.
ASTM	E336-84	Measurement of Airborne Sound Insulation in Buildings	9.11.1.1.
CGSB	7-GP-1M-1980	Stud, Framing Member, Light Steel and Furring Channel, Rigid	9.25.1.3.
CGSB	10-GP-3Ma-1981	Refractory Mortar, Air Setting	9.21.3.4. 9.21.36. 9.22.2.2.
CGSB	11-GP-3M-1976	Hardboard	9.28.10.1. 9.30.10.1. 9.31.2.3.
Col. 1	2	3	4

Table 2.6.3.A. (Cont'd)

Issuing Agency	Document Number	Title of Document	Code Reference
CGSB	11-GP-5Ma-1978	Hardboard, for Exterior Cladding	9.28.10.1.
CGSB	CAN2-12.1-M79	Glass, Safety, Tempered or Laminated	3.3.1.13.(1) 9.6.5.3. 9.7.3.1.
CGSB	CAN2-12.2-M76	Glass, Sheet, Flat, Clear	9.7.3.1.
CGSB	CAN2-12.3-M76	Glass, Polished Plate or Float, Flat, Clear	9.7.3.1.
CGSB	CAN2-12.4-M76	Glass, Heat Absorbing	9.7.3.1.
CGSB	CAN2-12.8-M76	Insulating Glass Units	9.7.2.1. 9.7.3.1.
CGSB	CAN2-12.10-M76	Glass, Light and Heat Reflecting	9.7.3.1.
CGSB	CAN2-12.11-M76	Glass, Wired, Safety	3.3.1.13.(1) 9.6.5.3. 9.7.3.1.
CGSB	19-GP-5M-1976	Sealing Compound, One Component, Acrylic Base, Solvent Curing	9.28.4.3.
CGSB	CAN2-19.13-M82	Sealing Compound, One Component, Elastomeric, Chemical Curing	9.28.4.3.
CGSB	19-GP-14M-1976	Sealing Compound, One Component, Butyl-Polyisobutylene Polymer Base, Solvent Curing	9.28.4.3.
CGSB	19-GP-22M-1977	Sealing Compound, Mildew Resistant, for Tubs and Tile	9.30.13.5.
CGSB	CAN2-19.24-M80	Sealing Compound, Multi-Component, Chemical Curing	9.28.4.3.
CGSB	24-GP-3a 1967	Identification and Classification of Piping Systems	3.2.5.4.(59)
CGSB	34-GP-4M-1977	Siding, Asbestos Cement, Shingles and Clapboards	9.28.8.1.
Col. 1	2	3	4

Table 2.6.3.A. (Cont'd)

Issuing Agency	Document Number	Title of Document	Code Reference
CGSB	34-GP-5M-1977	Sheets, Asbestos Cement, Corrugated	9.28.8.1.
CGSB	34-GP-14M-1977	Sheets, Asbestos Cement, Decorative	9.28.8.1.
CGSB	CAN2-34.16-M77	Sheets, Asbestos Cement, Flat, Fully Compressed	9.28.8.1.
CGSB	34-GP-17M-1977	Sheets, Asbestos-Cement, Flat, Semicompressed	9.28.8.1.
CGSB	34-GP-21M-1979	Panels, Sandwich, Asbestos-Cement with Insulating Cores	9.28.8.1.
CGSB	34-GP-22M-1976	Pipe, Asbestos-Cement, Drain	9.14.3.1.
CGSB	37-GP-2M-1976	Asphalt, Emulsified, Mineral Colloid Type, Unfilled, for Dampproofing and Waterproofing and for Roof Coatings	9.13.2.1.
CGSB	37-GP-3M-1976	Application of Emulsified Asphalts for Dampproofing or Waterproofing	9.13.1.5.
CGSB	37-GP-4Ma-1983	Cement, Lap, Cutback Asphalt, Fibrated, for Asphalt Roofing	9.27.2.1.
CGSB	37-GP-5Ma-1983	Cement, Plastic, Cutback Asphalt	9.27.2.1.
CGSB	37-GP-6Ma-1983	Asphalt, Cutback, Unfilled, for Dampproofing	9.13.2.1.
CGSB	37-GP-8Ma-1982	Asphalt, Cutback, Filled, for Roof Coating	9.27.2.1.
CGSB	37-GP-9Ma-1983	Primer, Asphalt, Unfilled, for Asphalt Roofing, Dampproofing and Waterproofing	9.27.2.1.
CGSB	37-GP-12Ma-1984	Application of Unfilled Cutback Asphalt for Dampproofing	9.13.1.5.
CGSB	37-GP-16M-1976	Asphalt, Cutback, Filled, for Dampproofing and Waterproofing	9.13.2.1.
Col. 1	2	3	4

Table 2.6.3.A. (Cont'd)

Issuing Agency	Document Number	Title of Document	Code Reference
CGSB	37-GP-18Ma-1984	Tar, Cutback, Unfilled, for Dampproofing	9.13.2.1.
CGSB	37-GP-21M-1976	Tar, Cutback, Fibrated, for Roof Coating	9.27.2.1.
CGSB	37-GP-22M-1976	Application of Unfilled Cutback Tar Foundation Coating for Dampproofing	9.13.1.5.
CGSB	41-GP-6M-1976	Sheets, Thermosetting Polyester Plastics, Glass Fiber Reinforced	9.27.2.1.
CGSB	41-GP-24Ma-1983	Siding, Soffits and Fascia, Rigid Vinyl	9.28.13.1.
CGSB	41-GP-29Ma-1983	Tubing, Plastic, Corrugated, Drainage	9.14.3.1.
CGSB	51-GP-20M-1978	Thermal Insulation, Expanded Polystyrene	Table 9.23.16.A. 9.26.3.2. 9.26.3.3.
CGSB	51-GP-21M-1978	Thermal Insulation, Urethane and Isocyanurate, Unfaced	Table 9.23.16.A. 9.26.3.3.
CGSB	51-GP-25M-1978	Thermal Insulation, Phenolic, Faced	Table 9.23.16.A. 9.26.3.3.
CGSB	51-GP-27M-1979	Thermal Insulation, Polystyrene, Loose Fill	9.26.3.3.
CGSB	CAN2-51.32-M77	Sheathing, Membrane, Breather Type	9.20.15.1. 9.23.17.1. 9.27.2.1.
CGSB	CAN2-51.33-M80	Vapor Barrier, Sheet, for Use in Building Construction	9.26.3.4.
CGSB	51-GP-60M-1979	Thermal Insulation, Cellulose Fibre, Loose Fill	9.26.3.3.
CGSB	63-GP-2M-1976	Windows, Extruded Aluminum, Vertical and Horizontal Sliding, Medium Duty	3.6.2.2. 9.7.2.1.
Col. 1	2	3	4

Table 2.6.3.A. (Cont'd)

Issuing Agency	Document Number	Title of Document	Code Reference
CGSB	63-GP-3M-1976	Windows, Extruded Aluminum, Vertical and Horizontal Sliding, Standard Duty	3.6.2.2. 9.7.2.1.
CGSB	63-GP-5M-1976	Windows, Steel, Vertical and Horizontal Sliding, Standard Duty	3.6.2.2. 9.7.2.1.
CGSB	63-GP-6M-1976	Windows, Steel, Vertical and Horizontal Sliding, Medium Duty	3.6.2.2. 9.7.2.1.
CGSB	63-GP-14M-1980	Skylights, Plastic	9.7.6.1. 9.7.6.2.
CGSB	82-GP-1M-1977	Doors, Glass, Aluminum Frame, Sliding, Standard Duty	9.6.4.2.
CGSB	82-GP-2M-1977	Doors, Glass, Aluminum Frame, Sliding, Medium Duty	9.6.4.2.
CGSB	82-GP-5M-1979	Doors, Insulated, Steel	9.6.4.3.
CGSB	93-GP-1M-1978	Sheet, Aluminum Alloy, Prefinished, Residential	9.28.12.4.
CGSB	93-GP-2Ma-1983	Siding, Soffits and Fascia, Aluminum, Prefinished, Residential	9.28.12.3.
CGSB	93-GP-3M-1978	Sheet, Steel, Galvanized, Prefinished, Residential	9.28.12.2.
CGSB	93-GP-4M-1978	Siding, Soffits and Fascia, Steel, Galvanized, Prefinished, Residential	9.28.12.1.
CGSB	115-GP-1-1974	Columns, Adjustable, Metal	9.17.3.6.
CSA	CAN3-A5-M83	Portland Cements	9.3.1.2. 9.20.3.1. 9.29.2.1.
CSA	CAN3-A8-M83	Masonry Cement	9.20.3.1.
CSA	CAN3-A23.1-M77	Concrete Materials and Methods of Concrete Construction	4.2.3.6. 4.2.3.9. 9.3.1.2. 9.3.1.3.
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Table 2.6.3.A. (Cont'd)

Issuing Agency	Document Number	Title of Document	Code Reference
CSA	CAN3-A23.2-M77	Methods of Test for Concrete	9.3.1.7.
CSA	CAN3-A23.3-M84	Design of Concrete Structures for Buildings	4.1.9.1.(8) 4.3.3.1.
CSA	A82.1-M1977	Burned Clay Brick	9.20.2.1.
CSA	CAN3-A82.2 M78	Methods of Sampling and Testing Brick	9.20.2.6.
CSA	A82.3-M1978	Calcium Silicate (Sand-Lime) Building Brick	9.20.2.1.
CSA	A82.4-M1978	Structural Clay Load-Bearing Wall Tile	9.20.2.1.
CSA	A82.5-M1978	Structural Clay Non-Load-Bearing Tile	9.20.2.1.
CSA	A82.21-M1978	Gypsum and Terms Relating to Gypsum Products	9.30.7.1.
CSA	A82.22-M1977	Gypsum Plasters	9.20.3.1. 9.30.7.1. 9.30.7.9.
CSA	A82.27-M1977	Gypsum Board Products	3.1.4.5.(2) Table 9.10.3.A. Table 9.10.3.B. Table 9.23.16.A. 9.30.4.1. 9.30.8.1
CSA	A82.30-M1980	Interior Furring, Lathing and Gypsum Plastering	9.30.1.1.
CSA	A82.56-M1976	Aggregate for Masonry Mortar	9.20.3.1.
CSA	A82.57-M1977	Inorganic Aggregate for Use in Interior Plaster	9.30.7.1.
Col. 1	2	3	4

2.6.3.2.

Table 2.6.3.A. (Cont'd)

Issuing Agency	Document Number	Title of Document	Code Reference
CSA	CAN3-A93-M82	Natural Airflow Ventilators for Buildings	9.19.1.1.
CSA	A101-M1983	Thermal Insulation, Mineral Fibre, for Buildings	9.26.3.3.
CSA	A123.1-M1979	Asphalt Shingles Surfaced with Mineral Granules	9.27.2.1.
CSA	A123.2-M1979	Asphalt Coated Roofing Sheets	9.27.2.1.
CSA	A123.3-	Asphalt or Tar Saturated Roofing Felt M1979	9.27.2.1.
CSA	A123.4-M1979	Bitumen for Use in Construction of Built-Up Roof Coverings and Dampproofing and Waterproofing Systems	9.13.2.1. 9.27.2.1.
CSA	A123.17-1963	Asphalt-Saturated Felted Glass-Fibre Mat for Use in Construction of Built-Up Roofs	9.27.2.1.
CSA	CAN3-A165.1-M85	Concrete Masonry Units	9.15.2.2. 9.20.2.1. 9.20.2.5.
CSA	CAN3-A165.2-M85	Concrete Brick Masonry Units	9.20.2.1.
CSA	CAN3-A165.3-M85	Prefaced Concrete Masonry Units	9.20.2.1.
CSA	CAN3-A165.4-M85	Autoclaved Cellular Units	9.20.2.1.
CSA	A247-M1978	Insulating Fibreboard	9.23.15.7. Table 9.23.16.A. 9.26.3.3. 9.30.11.1.
CSA	A261-1970	Liquid Bonding Agents for Interior Plasters	9.30.7.5.
Col. 1	2	3	4

Table 2.6.3.A. (Cont'd)

Issuing Agency	Document Number	Title of Document	Code Reference
CSA	CAN3-A266.1 M78	Air-Entraining Admixtures for Concrete	9.3.1.8.
CSA	CAN3-A266.2 M78	Chemical Admixtures for Concrete	9.3.1.8
CSA	A274-M1980	Vinyl Windows	9.7.2.1.
CSA	CAN3-A371-M84	Masonry Construction for Buildings	9.20.17.2.
CSA	CAN3-A438-M84	Concrete Construction for Housing and Small Buildings	9.3.1.1.
CSA	CAN3-A440-M84	Windows	9.7.2.1.(1)
CSA	CAN3-B44-M1985	Safety Code for Elevators, Dumbwaiters, Escalators, and Moving Walks	3.7.3.5.(1) Table 4.1.10.A.
CSA	B111-1974	Wire Nails, Spikes and Staples	9.23.3.1. 9.27.2.2.
CSA	B182.1-M1983	Plastic drain and Sewer Pipe and Pipe Fittings	9 14.3.1.
CSA	B228.1-1968	Pipes, Ducts, and Fittings for Residential Type Air Conditioning Systems	6.2.4.4.(10)
CSA	CAN3-B355-M81	Safety Code for Elevating Devices for the Handicapped	3.7.3.5.(2)
CSA	B365-M1984	Installation Code for Solid-Fuel Burning Appliances and Equipment	6.2.1.3. 9.34.2.1.
CSA	B366.2-M1984/ ULC S627-M1983	Space Heaters for Use with Solid Fuels	9.34.2.1.
CSA	C22.2-No.141-1972	Unit Equipment for Emergency Lighting	3.2.7.3.(3) 9.9.11.5.
Col. 1	2	3	4

Table 2.6.3.A. (Cont'd)

Issuing Agency	Document Number	Title of Document	Code Reference
CSA	C282-1977	Emergency Electrical Power Supply for Buildings	3.2.7.4.(1)
CSA	CAN3-G40.21 M81	Structural Quality Steels	4.2.3.8. 9.23.4.2.
CSA	CAN3-G401-M81	Corrugated Steel Pipe Products	9.14.3.1.
CSA	O80-M1983	Wood Preservation	3.1.4.2.(1)
CSA	O80.1-M1983	Preservative Treatment of All Timber Products by Pressure Processes	9.3.2.9.
CSA	O80.2-M1983	Preservative Treatment of Lumber, Timber, Bridge Ties and Mine Ties by Pressure Processes	4.2.3.2. 9.3.2.9.
CSA	O80.3-M1983	Preservative Treatment of Piles by Pressure Processes	4.2.3.2.
CSA	O80.9-M1983	Preservative Treatment of Plywood by Pressure Processes	9.3.2.9.
CSA	O80.15-M1983	Preservative Treatment of Wood for Building Foundation Systems, Basements and Crawl Spaces by Pressure Processes	4.2.3.2. 9.3.2.9.
CSA	CAN3-086-M84	Engineering Design in Wood	4.3.1.1.
CSA	CAN3-086.1-M84	Engineering Design in Wood-Limit States Design	4.3.1.1.
CSA	O115-M1982	Hardwood and Decorative Plywood	9.28.9.1. 9.31.2.3.
CSA	O118.1-M1980	Western Red Cedar Shingles, Handsplit Western Red Cedar Shakes and Machine-Grooved Shakes	9.27.2.1. 9.28.7.1.
Col. 1	2	3	4

Table 2.6.3.A. (Cont'd)

Issuing Agency	Document Number	Title of Document	Code Reference
CSA	0121-M1978	Douglas Fir Plywood	9.23.14.2. 9.23.15.1. Table 9.23.16.A. 9.24.2.1. 9.28.9.1. 9.31.2.3.
CSA	0132.1-M1977	Wood Windows	9.7.2.1.
CSA	0132.2-M1977	Wood Doors	9.6.4.1.
CSA	0141-1970	Softwood Lumber	3.1.4.4.(2) 9.3.2.6.
CSA	0151-M1978	Canadian Softwood Plywood	9.23.14.2. 9.23.15.1. Table 9.23.16.A. 9.24.2.1. 9.28.9.1. 9.31.2.3.
CSA	0153-M1980	Poplar Plywood	23.14.2. 9.23.15.1. Table 9.23.16.A. 9.24.2.1. 9.28.9.1. 9.31.2.3.
CSA	0177-M1981	Qualification Code for Manufacturers of Structural Glued-Laminated Timber	4.3.1.2.
CSA	CAN3-0188.1 M78	Interior Mat-Formed Wood Particleboard	9.23.14.3. 9.30.12.1. 9.31.2.3.
Col. 1	2	3	4

2.6.3.2.

Table 2.6.3.A. (Cont'd)

Issuing Agency	Document Number	Title of Document	Code Reference
CSA	CAN3-0188.2 M78	Waferboard	9.23.14.2. 9.23.15.1. Table 9.23.16.A. 9.24.2.1. 9.28.11.1. 9.30.12.1. 9.31.2.3.
CSA	CAN3-S16.1- M84	Steel Structures for Buildings-Limit States Design	4.3.4.1.
CSA	CAN3-S136- M84	Cold Formed Steel Structural Members	4.3.4.2.
CSA	CAN3-S157- M83	Strength Design in Aluminum	4.3.5.1.
CSA	S269.1-1975	Falsework for Construction Purposes	4.1.1.3.(3)
CSA	CAN3-S304- M78	Masonry Design and Construction for Buildings	4.1.9.3.(5) 4.3.2.1.
CSA	S307- M1980	Load Test Procedure for Wood Roof Trusses for Houses and Small Buildings	9.23.13.17.
CSA	CAN3-S367- M81	Air Supported Structures	4.3.6.1.
CSA	CAN3-S406- M83	Construction of Preserved Wood Foundations	9.15.1.6.
CSA	Z32.1-M1986	Safety in Anaesthetizing Locations	3.6.5.1.
CSA	Z32.4- M1978	Essential Electrical Systems for Hospitals	3.2.7.4.(2)
CSA	Z91-M1980	Safety Code for Window Cleaning Operations	4.1.10.6.(2)
CSA	Z240.2.1- 1979	Structural Requirements for Mobile Homes	2.1.1.4. 9.7.2.1.
Col. 1	2	3	4

2.6.3.2.

Table 2.6.3.A. (Cont'd)

Issuing Agency	Document Number	Title of Document	Code Reference
CSA	Z240.8.1-1978	Light Duty Windows	2.1.1.4. 9.7.2.1.
CSA	Z305.1-M1984	Non-Flammable Medical Gas Piping Systems	3.6.5.2.
NFPA	13-1983	Installation of Sprinkler Systems	3.2.4.11.(2) 3.2.5.5.(1) 3.2.5.5.(7) 3.2.8.1.(6) 3.2.8.1.(7) 3.2.8.3.(7)
NFPA	71-1982	Installation, Maintenance and Use of Central Station Signaling Systems	3.2.4.7.(3)
NFPA	72D-1979	Installation, Maintenance and Use of Proprietary Protective Signaling Systems	3.2.4.7.(3)
NFPA	80-1983	Fire Doors and Windows	3.1.6.4.(4) 3.1.6.7.(2) 3.1.6.8.(4) 3.1.6.10.(1) 3.2.8.1.(6) 9.10.13.1. 9.10.13.22.
NFPA	82-1983	Incinerators, Waste and Linen Handling Systems and Equipment	6.2.6.1 9.10.10.8.
NFPA	96-1984	Installation of Equipment for the Removal of Smoke and Grease-Laden Vapors from Commercial Cooking Equipment	6.2.2.3.(4)
NFPA	101-1985	Code for Safety to Life from Fire in Buildings and Structures	3.2.8.1.(6) 3.2.8.1.(7)
NFPA	214-1983	Water-Cooling Towers	6.2.3.13.(5)
NLGA	1980	Standard Grading Rules for Canadian Lumber	9.3.2.1.
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2.6.3.2.

Table 2.6.3.A. (Cont'd)

Issuing Agency	Document Number	Title of Document	Code Reference
ULC	CAN4-S101-M82	Standard Methods of Fire Endurance Tests of Building Construction and Materials	3.1.4.5.(2) 3.1.5.1.(1) 3.1.7.1.(2) 3.1.7.3.(2) 3.1.9.4.(1) 3.2.3.5.(3) 3.2.6.4.(7) 9.10.9.27.
ULC	CAN4-S102-M83	Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies	3.1.10.1.(1)
ULC	CAN4-S102.2 M83	Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Covering, and Miscellaneous Materials and Assemblies	3.1.10.1.(2) 3.1.11.3.(2)
ULC	S102.3-M1982	Standard Method of Fire Test of Light Diffusers and Lenses	3.1.11.3.(2)
ULC	CAN4-S104-M80	Standard Method for Fire Tests of Door Assemblies	3.1.6.4.(1) 3.2.6.4.(3)
ULC	CAN4-S105-79	Standard Specification for Fire Door Frames Meeting the Performance Required by CAN4-S104	9.10.13.7.
ULC	CAN4-S106-M80	Standard Method for Fire Tests of Window and Glass Block Assemblies	3.1.6.4.(1)
ULC	S107-M1980	Standard Method of Test for Fire Resistance of Roof Covering	3.1.13.1.
ULC	S109-M1980	Materials Standard for Flame Tests of Flame-Resistant Fabrics and Films	3.1.4.6.(5) 6.2.3.4. 6.2.3.5.
ULC	S110-M1980	Standard for Air Ducts	6.2.3.2.(2) 6.2.3.2.(4)
ULC	CAN4-S111-M80	Standard Method of Fire Tests for Air Filter Units	6.2.3.13.(1)
ULC	CAN4-S112-M82	Standard Method of Fire Test of Fire-Damper Assemblies	3.1.6.4.(1)
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Table 2.6.3.A. (Cont'd)

Issuing Agency	Document Number	Title of Document	Code Reference
ULC	CAN4-S113-79	Standard Specification for Wood Core Doors meeting the Performance Required by CAN4-S104-77 for Twenty Minute Fire Rated Closure Assemblies	9.10.13.2.
ULC	CAN4-S114-M80	Standard Method of Test for Determination of Non-Combustibility in Building Materials	1.3.2.
ULC	S124-M1981	Standard Method of Test for the Evaluation of Protective Coverings for Foamed Plastic	3.1.4.5.(2)
ULC	S126-M1982	Standard Method of Test For Fire Spread under Roof-Deck Assemblies	3.1.12.1.(1) 3.1.12.2.(1)
ULC	S505-1974	Standard for Fusible Links for Fire Protection Service	3.1.6.6.(2)
ULC	S513-78	Standard for Threaded Couplings for 1 1/2 and 2 1/2 Inch Fire Hose	3.2.5.4.(14)
ULC	CAN4-S524-M82	Standard for the Installation of Fire Alarm Systems	3.2.4.5.(1)
ULC	S531-1978	Standard for Smoke Alarms	3.2.4.15.(1) 9.10.18.1.
ULC	CAN4-S537-82	Standard for the Verification of Fire Alarm System Installations	3.2.4.5.(2)
ULC	S543-M1983	Standard for Internal Lug Quick Connect Couplings for Fire Hoses	3.2.5.4.(14)
ULC	S610-M1983	Standard for Factory-Built Fireplaces	9.22.8.1.
ULC	S627-M1983/ CSA B366.2-	Space Heaters for Use with Solid Fuels	9.34.2.1.
ULC	CAN4-S628-M1985	Standard for Fireplace Inserts	9.22.10.1.
ULC	S629-M1981	Standard for 650°C Factory-Built Chimneys	9.21.1.2.
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USE AND OCCUPANCY

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PART 3 USE AND OCCUPANCY

SECTION 3.1 GENERAL

SUBSECTION 3.1.1. SCOPE

3.1.1.1. The scope of this Part shall be as described in Section 2.1.

3.1.1.2. RESERVED.

3.1.1.3. RESERVED.

SUBSECTION 3.1.2. CLASSIFICATION OF BUILDINGS OR PARTS OF BUILDINGS BY MAJOR OCCUPANCY

Classification
of buildings
or parts
thereof

3.1.2.1.(1) Except as provided in Sentences (4) to (6), every building or part thereof shall be classified according to its major occupancy as belonging to one of the Groups or Divisions described in Table 3.1.2.A.

Table 3.1.2.A.
Forming Part of Article 3.1.2.1

Group	Division	Description of <u>Major Occupancies</u>	Examples
A	1	<u>Assembly Occupancies</u> intended for the production and viewing of the performing arts	Motion picture <u>theatres</u> Opera houses Television studios admitting a viewing audience <u>Theatres</u> , including experimental <u>theatres</u>
A	2	<u>Assembly occupancies not elsewhere classified in Group A</u>	Art galleries Auditoria Bowling alleys Churches and similar places of worship Clubs, nonresidential Community halls Court rooms Dance halls Day-care centres Exhibition halls (other than classified in Group E) Gymnasias Lecture halls Libraries Licensed beverage establish- ments Museums Passenger stations and depots Recreational piers Restaurants ⁽⁵⁾ Schools and colleges, nonresidential Undertaking premises
A	3	<u>Assembly occupancies of the arena type⁽¹⁾</u>	Arenas Rinks Indoor swimming pools with or without spectator seating
A	4	<u>Assembly occupancies in which provision is made for the congregation or gathering of persons for the purpose of partici- pating in or viewing open air activities</u>	Amusement park structures (not elsewhere classified) Bleachers Grandstands Reviewing stands Stadia
Col. 1	2	3	4

Table 3.1.2.A. (Cont'd)

Group	Division	Description of Major Occupancies	Examples
B	1	<u>Institutional occupancies</u> in which persons are detained for penal or correctional purposes or for involuntary detention or whose liberties are restricted	Jails Penitentiaries Police stations with detention quarters ⁽²⁾ Prisons Psychiatric hospitals with detention quarters Reformatories with detention quarters
B	2	<u>Institutional occupancies</u> in which person because of age, mental or physical limitations require special care or treatment	Children's custodial homes ⁽³⁾ Convalescent homes ⁽³⁾ Hospitals Infirmaries Nursing homes Orphanages Psychiatric hospitals without detention quarters Reformatories without detention quarters Sanatoria without detention quarters
C	-	<u>Residential occupancies</u>	Apartments Boarding houses Clubs, residential Colleges, residential Convents Dormitories Group homes Hostels Hotels Houses Lodging houses Monasteries Motels Retirement homes Schools, residential
D	-	<u>Business and personal services occupancies</u>	Banks Barber and hairdressing shops Beauty parlours Dental offices Dry cleaning establishments, self-service not employing flammable or explosive solvents or cleaners
Col. 1	2	3	4

Table 3.1.2.A. (Cont'd)

Group	Division	Description of <u>Major Occupancies</u>	Examples
D	-	<u>Business and personal services occupancies</u> (cont'd)	Laundries, self-service Medical offices Offices Police stations without detention quarters Radio stations Small tool and appliance rental and service establishments
E	-	<u>Mercantile occupancies</u>	Department stores Exhibition halls Markets Shops Stores Supermarkets
F	1	<u>High hazard industrial occupancies</u>	Bulk plants for flammable liquids Bulk storage warehouses for hazardous substances Cereal mills ⁽⁴⁾ Chemical manufacturing or processing plants ⁽⁴⁾ Distilleries ⁽⁴⁾ Dry cleaning plants Feed mills ⁽⁴⁾ Flour mills ⁽⁴⁾ Grain elevators ⁽⁴⁾ Lacquer factories Mattress factories Paint, varnish and pyroxylin product factories Rubber processing plants Spray painting operations Waste paper processing plants
F	2	<u>Medium hazard industrial occupancies</u>	Aircraft hangars Box factories Candy plants Cold storage plants Dry cleaning establishments not using flammable or explosive solvents or cleaners Electrical substations Factories
Col. 1	2	3	4

Table 3.1.2.A. (Cont'd)

Group	Division	Description of Major Occupancies	Examples
F	2	<u>Medium hazard industrial occupancies (cont'd)</u>	Freight depots Helicopter landing areas on roofs Laboratories Laundries except self-service Mattress factories Planing mills Printing plants <u>Repair garages</u> Salesrooms <u>Self-service storage buildings</u> Service stations Storage rooms Television studios not admitting a viewing audience Tire storage Warehouses Wholesale rooms Woodworking factories Workshops
F	3	<u>Low hazard industrial occupancies</u>	Creameries Factories Laboratories Power plants Salesrooms Sample display rooms <u>Storage garages including</u> open air parking garages Storage rooms Warehouses Workshops
Col. 1	2	3	4

Notes to Table 3.1.2.A.:

- (1) See Sentence 3.1.2.1.(4).
 (2) See Sentence 3.1.2.1.(5).
 (3) See Sentence 3.1.2.1.(6).
 (4) See Sentence 3.1.2.1.(2).
 (5) See Sentence 3.1.2.1.(7).

(2) When it is intended to use a building for more than 1 major occupancy, the building shall be classified according to all major occupancies for which it is used or intended to be used.

Buildings containing occupancies of same classification

(3) Any building may be deemed to be occupied by a single major occupancy, notwithstanding its use for more than 1 major occupancy, provided that such occupancies are classified as belonging to the same Group classification or, where the Group is divided into Divisions, as belonging to the same Division classification in Table 3.1.2.A.

Other uses of arena-type buildings

(4) An arena-type building intended for occasional use for trade shows and similar exhibition purposes shall be classified as Group A, Division 3 occupancy and, when the building area of such building exceeds 1 500 m², the building shall be sprinklered.

Police stations

(5) Police stations with detention quarters may be classified as Group B, Division 2 major occupancies provided such stations are not more than 1 storey in building height and 600 m² in building area.

Convalescent and children's homes

(6) Convalescent homes and children's custodial homes may be classified as Group C major occupancies provided that occupants are ambulatory and live as a single housekeeping unit in a dwelling unit with sleeping accommodation for not more than 10 persons.

Restaurants

(7) A restaurant may be classified as a Group E major occupancy provided such restaurant is not designed to accommodate more than 30 persons consuming food or drink.

SUBSECTION 3.1.3. MULTIPLE OCCUPANCY REQUIREMENTS

Buildings containing multiple occupancies

3.1.3.1.(1) The requirements restricting fire spread and collapse for a building of a single major occupancy classification are provided in Subsection 3.2.2. according to its building height and building area. Where any building contains more than 1 major occupancy (classified in more than 1 Group or Division), the requirements of Subsection 3.2.2. concerning building size and construction relative to occupancy, shall be applied according to Sentences (2) to (6).

Applicable building height and area

(2) In determining the fire safety requirements of a building in relation to each of the major occupancies contained therein, the building height and building area of the entire building shall be used.

Construction requirements for multiple occupancies

(3) Except as provided in Sentences (4) and (6), in any building containing more than 1 major occupancy, the requirements of Subsection 3.2.2. for the most restricted major occupancy contained shall apply to the whole building.

Major
occupancies
above other
occupancies

(4) Except as permitted in Sentence (6), in any building containing more than 1 major occupancy in which 1 major occupancy is located entirely above another major occupancy, the requirements in Subsection 3.2.2. for each portion of the building containing a major occupancy shall be applied to that portion as if the entire building was of that major occupancy.

Table 3.1.3.A.
Forming Part of Sentence 3.1.3.2.(1)

<u>Major Occupancy</u>	<u>Minimum Fire-Resistance Rating of Fire Separation,⁽¹⁾h</u>											
	<u>Adjoining Major Occupancy</u>											
	A-1	A-2	A-3	A-4	B-1	B-2	C	D	E	F-1	F-2	F-3
A-1	--	1	1	1	2	2	1	1	2	(2)	2	1
A-2	1	--	1	1	2	2	1	1	2	(2)	2	1
A-3	1	1	--	1	2	2	1	1	2	(2)	2	1
A-4	1	1	1	--	2	2	1	1	2	(2)	2	1
B-1	2	2	2	2	--	2	2	2	2	(2)	2	2
B-2	2	2	2	2	2	--	2	2	2	(2)	2	2
C	1	1	1	1	2	2	--	1	2 ⁽³⁾	(2)	2 ⁽⁴⁾	1
D	1	1	1	1	2	2	1	--	--	3	--	--
E	2	2	2	2	2	2	2 ⁽³⁾	--	--	3	--	--
F-1	(2)	(2)	(2)	(2)	(2)	(2)	(2)	3	3	--	2	2
F-2	2	2	2	2	2	2	2 ⁽⁴⁾	--	--	2	--	--
F-3	1	1	1	1	2	2	1	--	--	2	--	--
Column 1	2	3	4	5	6	7	8	9	10	11	12	13

Notes to Table 3.1.3.A.:

- (1) Section 3.3 contains requirements for the separation of occupancies and tenancies that are in addition to the requirements for the separation of major occupancies.
 (2) See Sentence 3.1.3.2.(2).
 (3) See Sentence 3.1.3.2.(3).
 (4) See Sentence 3.1.3.2.(4).

(5) Where one major occupancy is located above another, the fire-resistance rating of the floor assembly between such major occupancies shall be determined on the basis of the requirements in Subsection 3.2.2. for the lower major occupancy.

Exception for
major
occupancies

(6) In a building containing more than 1 major occupancy, where the aggregate area of all major occupancies in a particular group or division does not exceed 10 per cent of the floor area on the storey on which they are located, they need not be

considered as major occupancies for the purposes of Subsection 3.2.2. provided they are not classified as Group F, Division 1 or 2 occupancies.

(7) A helicopter landing area on the roof of a building need not be considered a major occupancy for purposes of Subsection 3.2.2. where such landing area does not exceed 10 per cent of the area of the roof.

Separation
of major
occupancies

3.1.3.2.(1) Except as provided in Sentences (2) to (4), major occupancies shall be separated from adjoining major occupancies by fire separations having fire-resistance ratings conforming to Table 3.1.3.A.

Prohibition of
occupancy
combinations

(2) No major occupancy of Group F, Division 1 shall be contained within a building with any occupancy classified as Group A, B, or C.

(3) Where not more than 2 dwelling units are contained in a building with a Group E major occupancy not over 3 storeys in building height, the fire-resistance rating of the fire separation between the 2 major occupancies need not exceed 1 h.

(4) Except as provided in Sentence 3.10.2.4.(9), not more than 1 suite of residential occupancy shall be contained within a building classified as a Group F, Division 2 major occupancy.

Exemption for
interconnected
floor spaces

(5) The fire separations required between major occupancies in this Article may be penetrated by floor openings protected in conformance with Subsection 3.2.8., except for fire separations for Group F, Division 1 major occupancies and for mezzanines described in Sentence 3.2.8.1.(4).

SUBSECTION 3.1.4. CONSTRUCTION TYPES

Combustible
construction

3.1.4.1.(1) Where a building is permitted to be of combustible construction, it may be constructed of combustible materials described in Part 9, with or without noncombustible components.

Protection of
foamed plastic

(2) Foamed plastics which form part of a wall or ceiling assembly in combustible construction shall be protected on the interior side by

(a) one of the interior finishes described in Section 9.30, or

(b) sheet metal mechanically fastened to the supporting assembly independent of the insulation and having a thickness of at least

0.38 mm and a melting point of not less than 650°C provided the building does not contain a Group B or Group C major occupancy.

Fire-retardant treated wood

3.1.4.2(1) Where fire-retardant treated wood is specified in this Part, such wood shall

- (a) be pressure impregnated with fire-retardant chemicals in conformance with CSA 080, "Wood Preservation", and
- (b) have a flame-spread rating of not more than 25.

Heavy timber alternative to 3/4 h combustible fire rating

3.1.4.3. Where combustible construction is permitted and is required to have a 3/4 h fire-resistance rating, heavy timber construction may be used provided the construction conforms to Article 3.1.4.4.

Heavy timber

3.1.4.4.(1) Wood elements in heavy timber construction shall be arranged in heavy solid masses and with essentially smooth flat surfaces to avoid thin sections and sharp projections.

Table 3.1.4.A.
Forming Part of Sentence 3.1.4.4.(3)

Supported Assembly	Structural Element	Solid Sawn (width x depth), mm x mm	Glued-Laminated (width x depth), mm x mm	Round (diam), mm
Roofs only	Columns	140 x 191	130 x 190	180
	Arches supported on the tops of walls or abutments	89 x 140	80 x 152	--
	Beams, girders and trusses	89 x 140	80 x 152	--
	Arches supported at or near the floor line	140 x 140	130 x 152	--
Floors, floors plus roofs	Columns	191 x 191	175 x 190	200
	Beams, girders, trusses and arches	140 x 241 or 191 x 191	130 x 228 or 175 x 190	--
Column 1	2	3	4	5

Dimensions

(2) The actual dimensions of solid-sawn lumber used in heavy timber construction in this Article shall conform to CSA 0141, "Softwood Lumber."

(3) Except as provided in Sentences (4) to (6), the minimum dimensions of wood elements in heavy timber construction shall conform to Table 3.1.4.A.

Roof supports

(4) Roof arches supported on the tops of walls or abutments, roof trusses, roof beams and roof girders shall be spliced where necessary with splice plates at least 64 mm thick and be

- (a) at least 64 mm thick where 2 or more spaced members are used for the construction with intervening spaces blocked solidly throughout or tightly closed by a continuous wood cover plate of at least 38 mm thickness secured to the underside of the members, or
- (b) at least 64 mm thick when protected by automatic sprinklers under the roof deck.

Floors

(5) Floors shall be of glued-laminated or solid-sawn plank that is at least 64 mm thick, splined or tongued and grooved, or at least 38 mm wide and 89 mm deep set on edge and well-spiked together

- (a) laid so that no continuous line of end joints will occur except at points of support, and covered with at least 19 mm tongued and grooved flooring laid cross-wise or diagonally, or at least 12.5 mm tongued and grooved phenolic-bonded plywood or 12.5 mm tongued and grooved phenolic-bonded waferboard, and
- (b) laid not closer than 15 mm to the walls to provide for expansion, and the gap covered at the top or bottom.

Roofs

(6) Roofs shall be of at least 28 mm thick tongued and grooved phenolic-bonded plywood, or glued-laminated or solid-sawn plank that is

- (a) at least 38 mm thick, splined or tongued and grooved, or
- (b) at least 38 mm wide and 64 mm deep set on edge and laid so that no continuous line of end joints will occur except at the points of support.

(7) Wood columns shall be continuous or superimposed throughout all storeys.

Construction
details

(8) Superimposed wood columns shall be connected by

(a) reinforced concrete or metal caps with brackets,

(b) steel or iron caps with pintles and base plates, or

(c) timber splice plates fastened to the columns by metal connectors housed within the contact faces.

(9) Where beams and girders enter masonry, wall plates, boxes of the self-releasing type or hangers shall be used.

(10) Wood girders and beams shall be closely fitted around columns, and adjoining ends shall be connected by ties or caps to transfer horizontal loads across the joints.

(11) Intermediate wood beams used to support a floor shall be supported on top of the girders or on metal hangers into which the ends of the beams are closely fitted.

Noncombustible
construction

3.1.4.5.(1) Where a building or part of a building is required to be of noncombustible construction, the construction shall be made from noncombustible materials, except as permitted in Sentences (2) to (12), Sentences 3.1.11.3.(2) and 3.2.2.8.(2).

Combustible
elements
permitted in
roofs, floors
and walls

(2) Combustible elements of roofs, floors and walls shall be limited to

(a) the following minor components:

(i) paint,

(ii) tightly-adhering paper covering not exceeding 1 mm thickness applied to a noncombustible backing provided the assembly has a flame-spread rating of 25 or less,

(iii) mastics and caulking materials applied to provide flexible seals between the major components of exterior wall construction,

- (iv) wood furring strips not exceeding 38 mm by 38 mm attached directly to a continuous noncombustible backing, or wood nailing strips set into a continuous noncombustible backing for the attachment of interior finishes,
- (v) fire stop materials conforming to Sentences 3.1.7.1.(2) and 3.1.9.4.(1), and
- (vi) similar minor components,
- (b) roof covering which has an A, B, or C classification determined in conformance with Subsection 3.1.13.,
- (c) adhesives, vapour barriers and sheathing papers,
- (d) insulation, other than foamed plastics, having a flame-spread rating of not more than 25 on any exposed surface or any surface that would be exposed by cutting through the material in any direction, where the insulation is not protected as described in Clauses (e) or (f),
- (e) foamed plastic insulation having a flame-spread rating of not more than 25 on any exposed surface or any surface that would be exposed by cutting through the material in any direction provided the insulation is protected on the interior side by a thermal barrier consisting of
 - (i) at least 12.7 mm thick gypsum board mechanically fastened to the supporting assembly independent of the insulation,
 - (ii) lath and plaster, mechanically fastened to the supporting assembly independent of the insulation,
 - (iii) masonry,
 - (iv) concrete, or
 - (v) any thermal barrier that meets the requirements of classification B when tested in conformance with ULC-S124, "Standard Method of Test for the Evaluation of Protective Coverings for Foamed Plastic,"

(f) insulation, including foamed plastics, having a flame-spread rating of greater than 25 but not greater than 500 on any exposed surface or any surface that would be exposed by cutting through the material in any direction provided the insulation is protected on the interior side with a thermal barrier as described in Clause (e), except that in unsprinklered buildings exceeding 18 m in height or in unsprinklered buildings regulated by the provisions of Subsection 3.2.6., the insulation is protected on the interior side by a thermal barrier consisting of

(i) at least 2 layers of 15.9 mm thick Type X special fire resistant gypsum board, conforming to CSA A82.27, "Gypsum Board Products," with at least the first layer mechanically fastened to the supporting assembly independent of the insulation,

(ii) at least 75 mm of masonry or concrete, or

(iii) any thermal barrier that, when tested in conformance with CAN4-S101, "Standard Methods of Fire Endurance Tests of Building Construction and Materials," will not exceed an average temperature rise of 139°C on the unexposed face of the thermal barrier after a period of 45 min,

(g) insulation, including foamed plastics, installed above roof decks, outside of foundation walls below ground level and beneath concrete slabs-on-ground,

(h) thermosetting foamed plastic insulation having a flame-spread rating of not more than 500 which forms part of a factory-assembled exterior wall panel that does not incorporate an air space provided

(i) the foamed plastic is protected on both sides by sheet steel which has a thickness of at least 0.38 mm and which will remain in place for at least 10 min when the wall panel is tested in conformance with CAN4-S101, "Standard Methods of Fire Endurance

Tests of Building Construction and Materials,"

- (ii) the flame-spread rating of the wall panel, determined by subjecting a sample including an assembled joint to the appropriate test described in Subsection 3.1.10., does not exceed the flame-spread rating permitted for the room or space which it bounds,
- (iii) the building does not contain a Group B or Group C major occupancy, and
- (iv) the building does not exceed 18 m in height, measured between grade and the floor level of the uppermost storey,
- (i) solid lumber partitions not less than 38 mm in thickness and wood framing in partitions, located in fire compartments not exceeding 600 m² or in sprinklered floor areas provided the partitions
 - (i) are not required fire separations, and
 - (ii) are not located in Group B occupancies,
- (j) combustible skylight assemblies provided such assemblies have a flame-spread rating of not more than
 - (i) 150 where such assemblies have an individual area not exceeding 9 m² and an aggregate horizontal projected area not exceeding 25 per cent of the area of the ceiling of the room in which they are located and are spaced at least 2.5 m from adjacent assemblies and 1.2 m from required fire separations, or
 - (ii) 75 where such assemblies have an individual area not exceeding 27 m² and an aggregate horizontal projected area not exceeding 33 per cent of the area of the ceiling of the room in which they are located and are spaced at least 1.2 m from adjacent

assemblies and required fire separations,

- (k) combustible cant strips, roof curbs, nailing strips and similar components used in the installation of roofing,
- (l) combustible roof sheathing and roof sheathing supports installed above a concrete deck provided
 - (i) the concrete deck is at least 50 mm thick,
 - (ii) the height of the roof space above the deck does not exceed 1 m,
 - (iii) the roof space is divided into compartments by noncombustible fire stops in conformance with Sentence 3.1.9.3.(1),
 - (iv) openings through the concrete deck other than for noncombustible roof drains and plumbing piping are protected by masonry or concrete shafts constructed as fire separations having a fire-resistance rating of at least 1 h and extending from the concrete deck to at least 150 mm above the adjacent roof sheathing,
 - (v) the perimeter of the roof is protected by a noncombustible parapet extending from the concrete deck to at least 150 mm above the adjacent sheathing, and
 - (vi) except as permitted in Subclause (iv), the roof space does not contain any building services, and
- (m) combustible marquees not greater than 7.5 m from grade to the top of the marquee provided every opening in the exposed exterior wall of the building within 4.5 m horizontally and 9 m vertically above the marquee is protected with wired glass in accordance with Sentence 3.1.6.10.(2).

Combustible
finishes and
millwork

(3) Combustible millwork, interior cladding and finishing materials shall be limited to

- (a) millwork such as interior trim, doors and door frames, show windows together with their frames, aprons and backing, handrails, shelves, cabinets and counters,
- (b) window sash and frames provided
 - (i) each window in an exterior wall face is an individual unit separated by noncombustible wall construction from every other opening in the wall,
 - (ii) windows in exterior walls in contiguous storeys are separated by at least 1 m of noncombustible construction, and
 - (iii) the aggregate area of openings in an exterior wall face of a fire compartment does not exceed 40 per cent of the area of the wall face,
- (c) finished flooring applied directly to a floor slab in which wood nailing strips may be incorporated or applied to wood sleepers on top of a floor slab,
- (d) stage flooring supported on noncombustible structural members in conformance with Sentence 3.3.2.14.(1),
- (e) stairs within a dwelling unit,
- (f) interior finishes such as paint, wallpaper and other interior finishes not exceeding 1 mm in thickness,
- (g) interior wall finishes other than foamed plastics that
 - (i) are not more than 25 mm in thickness, and
 - (ii) have a flame-spread rating of not more than 150 on any exposed surface, or any surface that would be exposed by cutting through the material in any direction,
- (h) interior ceiling finishes other than foamed plastics that
 - (i) are not more than 25 mm in thickness, except for exposed fire-retardant treated wood battens, and

(ii) consist of a material having a flame-spread rating of not more than 25 on any exposed surface or on any surface that would be exposed by cutting through the material in any direction or fire-retardant tressed wood, except that not more than 10 per cent of the ceiling area within each fire compartment is permitted to have a flame-spread rating of not more than 150, and

(i) combustible vertical glazing installed no higher than the second storey provided the glazing has a flame-spread rating of not more than 75, except that the flame-spread rating is permitted to be not more than 150 where the aggregate area of the glazing does not exceed 25 per cent of the wall area of the storey in which it is located, and

(i) the glazing is installed in a building of 1 storey in building height, or

(ii) the glazing in the first storey is separated from the glazing in the second storey by apron walls, spandrel walls or canopies conforming to Article 3.3.6.2.

Combustible
services

(4) Combustible ducts, including plenums and duct connectors may be used in a building required to be of noncombustible construction provided such ducts and duct connectors

(a) are used only in horizontal runs, and

(b) are Class 1 conforming to Part 6.

(5) Except as permitted in Sentence (11), combustible conduit, piping, tubing and associated adhesives may be used in a building required to be of noncombustible construction provided they

(a) have a flame-spread rating of not more than 25, except when concealed in a wall or a concrete floor slab, and

(b) when used in buildings described in Subsection 3.2.6., have a smoke developed classification of not more than 50, except when concealed in a wall or a concrete floor slab.

(6) Combustible electrical outlet and junction boxes are permitted in buildings required to be of noncombustible construction.

(7) Combustible duct linings, duct coverings, duct insulation, vibration isolation connectors, duct tape, pipe insulation and pipe coverings may be used in buildings required to be of noncombustible construction provided they conform to the appropriate requirements in Part 6.

(8) Combustible travelling cables may be used on elevating devices in buildings required to be of noncombustible construction.

(9) Except as permitted in Sentence (13), wiring with combustible jackets or sheathes may be used in a building required to be of noncombustible construction provided

(a) the wiring is enclosed in noncombustible conduit when located in vertical shafts in buildings within the scope of Subsection 3.2.6., and

(b) wiring, including single wires or groups of wires, that has an overall diameter greater than 25 mm is installed in noncombustible conduit, unless the wiring is located in

(i) a concrete floor slab,

(ii) a concealed space in a wall, or

(iii) in a service room separated from the remainder of the building by a fire separation having at least a 1 h fire-resistance rating.

(10) Combustible plumbing fixtures, including wall and ceiling enclosures, shall be constructed of material having a flame-spread rating not greater than that permitted for the wall surface of the room or space in which they are installed.

(11) Combustible tubing for pneumatic controls may be used in buildings required to be of noncombustible construction provided it has an outside diameter not exceeding 10 mm.

(12) Storage lockers in storage rooms may be constructed of wood in buildings of residential occupancy required to be of noncombustible construction.

(13) Single conductor metal sheathed or metal armoured electrical cable, including combustible jacketing for such cables, in circuits where the calculated demand is in excess of 400 amperes, may be used in buildings required to be of noncombustible construction.

Tents and
air-supported
structures

3.1.4.6.(1) Except for tents used for camping and other personal uses and except as provided in Sentences (2), (3) and (4), every tent and air-supported structure shall conform to Subsection 3.2.3.

(2) Tents and air-supported structures shall not be erected closer than 3 m to other structures on the same property except as provided in Sentences (3) and (4), and shall be sufficiently distant from one another to provide an area to be used as a means of emergency egress.

(3) Tents and air-supported structures not occupied by the public need not be separated from one another, and may be erected less than 3 m from other structures on the same property where such closer spacing does not create a hazard to the public.

(4) Tents not exceeding 120 m² in ground area, located on fair grounds or similar open spaces, need not be separated from one another provided acceptable safety precautions are taken.

(5) Every tent and all tarpaulins and decorative materials used in connection with tents and air-supported structures shall conform to ULC-S109, "Standard for Flame Tests of Flame-Resistant Fabrics and Films".

(6) The ground enclosed by a tent or air-supported structure and for at least 3 m outside of such structure shall be cleared of all flammable material or vegetation that will carry fire.

(7) Tents and air-supported structures shall conform to Sections 3.3 and 3.4.

(8) Air-supported structures shall be designed primarily as open floor space without interior walls, mezzanines, intermediate floors or similar assemblies.

(9) RESERVED.

(10) Air-supported structures shall not be used for Groups B, C and Group F, Division 1 major occupancies or for classrooms.

(11) RESERVED.

SUBSECTION 3.1.5. FIRE-RESISTANCE RATING

Determination
of fire-resistance
ratings

3.1.5.1.(1) Except as provided in Sentences (2) and (3), where a material, assembly of materials or a structural member is required to have a fire-resistance rating, the rating shall be determined on the basis of the results of tests conducted in conformance with CAN4-S101, "Standard Methods of Fire Endurance Tests of Building Construction and Materials."

(2) A material, assembly of materials or a structural member may be assigned a fire-resistance rating on the basis of Chapter 2, "Fire Performance Ratings" of the Supplement to the NBC 1985.

Exception for
exterior walls

(3) The limitation on the rise of temperature on the unexposed surface of an assembly as required by the tests in Sentence (1) shall not apply to an exterior wall that has a limiting distance of 1.2 m or more provided correction is made for radiation from the unexposed surface in accordance with Article 3.2.3.9.

Lay-in ceiling
panels

(4) Where a ceiling construction has a suspended membrane ceiling with lay-in panels or tiles which contribute to the required fire-resistance rating of the assembly, hold down clips or other means shall be provided to prevent the lifting of such panels or tiles in the event of a fire.

Application to
various
assemblies

3.1.5.2.(1) Floor, roof and ceiling assemblies shall be rated for exposure to fire on the underside.

(2) Firewalls and interior vertical fire separations shall be rated for exposure to fire on each side.

(3) Exterior walls shall be rated for exposure to fire from inside the building.

Minimum fire-
resistance rating
applies

3.1.5.3. The use of materials or assemblies of materials having a greater fire-resistance rating than required shall entail no obligation to exceed in whole or in part the minimum fire-resistance ratings required by this Part.

Fire resistance
of supporting
construction

3.1.5.4.(1) Except as provided in Sentence (2) and in Articles 3.2.2.9. to 3.2.2.53. for mixed types of construction, all loadbearing walls, columns and arches in the storey immediately below a floor or roof assembly required to have a fire-resistance rating shall have a fire-resistance rating at least

equivalent to that of the supported floor or roof assembly.

(2) Loadbearing walls, columns and arches supporting a service room or service space need not conform to Sentence (1).

(3) Where an assembly is required to be of noncombustible construction and have a fire-resistance rating, it shall be supported by noncombustible construction.

SUBSECTION 3.1.6. FIRE SEPARATIONS AND CLOSURES

Requirements
and limitations

3.1.6.1.(1) Any wall, partition or floor assembly required to be a fire separation shall

(a) except as permitted in Sentence (2), be constructed as a continuous element, and

(b) where required in this Part, have a fire-resistance rating as specified.

(2) Openings in fire separations shall be protected with closures, shafts or other means in conformance with Articles 3.1.6.4. to 3.1.6.11. and with Subsections 3.1.7. and 3.2.8.

Combustible
elements and
construction

3.1.6.2. Combustible construction that abuts on or is supported by a noncombustible fire separation shall be constructed so that its collapse under fire conditions will not cause the collapse of the fire separation.

Continuity of
fire separations

3.1.6.3.(1) Except as provided in Sentence (2), a horizontal service space or other concealed space located above a required vertical fire separation, including the walls of a vertical shaft, shall be divided at the fire separation by an equivalent fire separation within the service space, and the separation shall terminate so that a smoke-tight joint is provided at the point where it abuts on or intersects the floor and the roof slab or deck.

(2) Where a horizontal service space or other concealed space is located above a required vertical fire separation other than a vertical shaft, such space need not be divided at the fire separation as required in Sentence (1) provided the construction between such space and the space below is constructed as a fire separation at least equivalent to that required for the vertical fire separation, except that where the vertical fire separation is not required to have a fire-resistance rating greater

than 3/4 h, the fire-resistance rating may be reduced to 1/2 h.

(3) Where a shaft, including exit enclosures, penetrates a fire separation, it shall extend through any horizontal service space or any other concealed space and shall terminate so that a smoke-tight joint is provided at the point where the shaft abuts on or intersects the floor and the roof slab or deck, except as provided in Subsection 3.5.3. where the shaft pierces through a roof assembly.

Determination
of fire-
protection
ratings

3.1.6.4.(1) Except as provided in Sentences (2) and 3.1.6.10.(2), where an opening in a fire separation is required to be protected with a closure having a fire-protection rating, the fire-protection rating shall be determined on the basis of the results of tests conducted in conformance with the appropriate provisions in CAN4-S106, "Standard Method for Fire Tests of Window and Glass Block Assemblies," CAN4-S104, "Standard Method for Fire Tests of Door Assemblies," or CAN4-S112, "Standard Method of Fire Test of Fire Damper Assemblies."

(2) Except as provided in Sentence 3.1.6.7.(1), the fire-protection rating of closures shall conform to Table 3.1.6.A. for the required grade of fire separation.

Table 3.1.6.A.
Forming Part of Sentence 3.1.6.4.(2)

Grade of <u>Fire Separation</u> , h	Required <u>Fire-Protection Rating</u> of <u>Closure</u> , h
3/4	3/4
1	3/4
1 1/2	1
2	1 1/2
3	2
4	3
Column 1	2

(3) Except where fire dampers, window assemblies and glass block are used as closures, 2 closures of the same fire-protection rating installed on opposite sides of the same opening may be deemed to have a fire-protection rating equal to the sum of the fire-protection ratings of the closures.

Installation of
closures

(4) Except as otherwise specified in this Part, every fire door, window assembly or glass block used as a closure in a required fire separation shall

(a) be installed in conformance with Chapters 2 to 13 of NFPA 80, "Fire Doors and Windows", and

(b) where required to have a fire-protection rating, have labels or classification marks to identify the testing laboratory.

(5) Where a door is installed so that it may damage the integrity of a fire separation if its swing is unrestricted, door stops shall be installed to prevent such damage.

Maximum
openings

(6) The size of an opening in an interior fire separation required to be protected with a closure shall not exceed 11 m², with no dimension greater than 3.7 m, when the fire compartments on both sides of the fire separation are not sprinklered.

(7) The size of an opening in an interior fire separation required to be protected with a closure shall not exceed 22 m², with no dimension greater than 6 m, when the fire compartments on both sides of the fire separation are sprinklered.

Fire dampers
as closures

3.1.6.5.(1) Except as permitted in Sentences (3) to (7), ducts that connect 2 fire compartments or that penetrate an assembly required to be a fire separation shall be equipped with a fire damper.

(2) A fire damper required in Sentence (1) or other fire damper used as a closure in a fire separation shall have a fire-protection rating conforming to Sentence 3.1.6.4.(2).

Fire dampers
waived

(3) Fire dampers need not be provided in noncombustible branch ducts that have a melting point above 760°C and penetrate a required fire separation provided such ducts

(a) serve only air-conditioning units or combined air-conditioning and heating units discharging air at not more than 1.2 m above the floor provided such ducts have a cross-sectional area of not more than 130 cm², or

(b) are connected to exhaust duct risers that are under negative pressure and in which the air flow is upward as provided in Article 3.5.3.3. and such ducts are carried up inside the riser at least 500 mm.

(4) A duct piercing a vertical fire separation not required to have a fire-resistance rating need not be equipped with a fire damper at the fire separation.

(5) A noncombustible duct piercing a horizontal fire separation not required to have a fire-resistance rating need not be equipped with a fire damper at the fire separation.

(6) Noncombustible ducts that penetrate a fire separation that separates a vertical service space from the remainder of the building need not be equipped with a fire damper at the fire separation provided the ducts have a melting point above 760°C and each individual duct exhausts directly to the outside at the top of the vertical service space.

(7) A continuous noncombustible duct having a melting point above 760°C that pierces a vertical fire separation as required in Sentence 3.3.1.1.(1) between suites of other than residential or institutional occupancy need not be equipped with a fire damper at the fire separation.

Construction
and installation

3.1.6.6.(1) Fire dampers shall conform to the requirements of this Article.

(2) Fire dampers shall be arranged to close automatically upon the operation of a fusible link conforming to ULC-S505, "Standard for Fusible Links for Fire Protection Service" or other heat- or smoke-actuated device.

(3) Heat-actuated devices in Sentence (2) shall be located where they are readily affected by an abnormal rise of temperature in the duct and shall have a temperature rating approximately 30°C above the maximum temperature that would exist in the system either with the system in operation or shut down.

(4) Fire dampers shall be installed in the plane of the fire separation so as to stay in place should the duct be dislodged during a fire.

(5) Fire dampers tested in the vertical or horizontal position shall be installed in the manner in which they were tested.

(6) A tightly fitted access door shall be installed for each fire damper to provide access for the inspection of the damper and the resetting of the release device.

20 min door
assemblies

3.1.6.7.(1) A door assembly having a 20 min fire-protection rating is permitted to be used as a closure in

(a) a fire separation not required to have a fire-resistance rating exceeding 1 h and located between

(i) a public corridor and a suite,

(ii) a corridor and adjacent sleeping rooms and bedrooms, or

(iii) a corridor and adjacent classrooms, offices and libraries in Group A, Division 2 major occupancies, and

(b) a fire separation not required to have a fire-resistance rating exceeding 3/4 h and located in a building not exceeding 3 storeys in building height.

(2) The requirements for noncombustible sills and combustible floor coverings in NFPA 80, "Fire Doors and Windows" do not apply to doors described in Sentence (1).

(3) Doors described in Sentence (1) shall have a clearance of not more than 6 mm at the bottom and not more than 3 mm at the sides and top.

Self-closing
devices

3.1.6.8.(1) Except as provided in Sentence (2), every door in a fire separation other than doors to freight elevators and dumbwaiters shall be equipped with a self-closing device designed to return the door to the closed position after each use.

(2) Self-closing devices need not be provided on doors that are located between

(a) a corridor providing access to exit from classrooms and the adjacent classrooms in a building that does not exceed 3 storeys in building height,

(b) a public corridor and adjacent rooms of Group D occupancy in a building that does not exceed 3 storeys in building height and the doors are not located in a dead-end portion of the corridor, or

(c) patients' bedrooms or a corridor and adjacent patients' bedrooms where the doors are within a fire compartment described in Sentence 3.3.3.6.(2).

Hold-open
devices

(3) Hold-open devices are permitted on doors in required fire separations, other than exit doors in a building greater than 3 storeys in building height and doors on vestibules required in Article 3.3.7.6., provided they are designed to release the door in conformance with Sentences (4) and (5).

(4) Except as permitted in Sentence (5), hold-open devices in Sentence (3) shall be designed to release

(a) upon a signal from a smoke detector located as described in Appendix A of NFPA 80, "Fire Doors and Windows," or from a smoke detector as required in Sentence 3.2.4.10.(4) for sleeping rooms in Group B occupancies, except that hold-open devices on doors other than exit doors, doors opening into a public corridor and egress doors in Sentence 3.4.2.3.(2) may be released by a sprinkler system or a heat-actuated device provided the door does not serve a Group A, Group B or Group C occupancy and is not required to function as part of a smoke control system, and

(b) upon a signal from the building fire alarm system where a fire alarm system is provided, except that this requirement does not apply to a hold-open device on a door located between a corridor used by the public and an adjacent patient's bedroom in hospitals and nursing homes or to a hold-open device that is designed to release by a heat-actuated device in conformance with Clause (a).

(5) In Group F, Division 2 and 3 occupancies, the hold-open devices in Sentence (3) may be designed to release upon a signal from a smoke detector located as described in Appendix A of NFPA 80, "Fire Doors and Windows".

Door latches

3.1.6.9. Except as permitted in Subsection 3.3.3., every swing-type door in a fire separation shall be equipped with a positive latching mechanism designed to hold the door in the closed position after each use.

Wired glass and
glass blocks

3.1.6.10.(1) Except as provided in Article 3.1.6.11. for the separation of exits, an opening or openings in a fire separation having a fire-resistance rating of not more than 1 h may be protected with fixed wired glass assemblies or glass blocks installed in conformance with NFPA 80, "Fire Doors and Windows."

(2) Wired glass assemblies in Sentence (1), which are used in vertical fire separations, need not be tested in conformance with Sentence 3.1.6.4.(1) provided that the wired glass is

(a) at least 6 mm thick,

(b) reinforced by a steel wire mesh in the form of diamonds, squares or hexagons having dimensions of approximately 25 mm across the flats, using wire of at least 0.45 mm diam, or approximately 13 mm across the flats, using wire of at least 0.40 mm diam, the wire to be centrally embedded during manufacture and welded or intertwined at each intersection,

(c) set in fixed steel frames having a minimum metal thickness of 1.35 mm and providing a glazing stop of at least 20 mm on each side of the glass, and

(d) limited in area so that

(i) individual panes are not more than 0.84 m^2 , with neither height nor width exceeding 1.4 m, and

(ii) the area not structurally supported by mullions does not exceed 7.5 m^2 .

Temperature
rise limits for
doors

(3) Where glass blocks are permitted in Sentence (1), they shall be installed in accordance with Subsection 4.3.2. and reinforced with steel reinforcement in each horizontal joint.

3.1.6.11.(1) Except as provided in Sentence (3), the maximum temperature rise on the opaque portion of the unexposed side of a door used as a closure in a fire separation, when tested in conformance with Sentence 3.1.6.4.(1), shall conform to Table 3.1.6.B. when used in the locations shown in the Table.

Area limits
on wired glass
and glass
blocks

(2) Except as provided in Sentence (3), the maximum area of wired glass in a door and the maximum area of wired glass panels or glass block not in a door shall conform to Table 3.1.6.B. when used in the locations shown in the Table.

(3) The temperature rise limits and glass area limits required in Sentences (1) and (2) are waived for closures between an exit enclosure and an enclosed vestibule or corridor provided

(a) the vestibule or corridor is separated from the remainder of the floor area by a fire separation having a fire-resistance rating of at least 3/4 h,

(b) the separation in Clause (a) contains no wired glass or glass block within 3 m of the closure into the exit enclosure, and

Table 3.1.6.B.

Forming Part of Sentences 3.1.6.11.(1) and (2)

Location	Minimum Required <u>Fire-Protection Rating</u> of Door, h	Maximum Temperature Rise on Unexposed Side of Door °C	Maximum Area of Wired Glass in Door, cm ²	Maximum Aggregate Area of Wired Glass Panels and Glass Block not in Door, cm ²
Between a dead-end corridor and an adjacent <u>occupancy</u> where the corridor provides the <u>only access to exit</u> and is required to have a <u>fire-resistance rating</u>	Less than 3/4	No limit	No limit	No limit
Between an <u>exit enclosure</u> and the remainder of the <u>floor area in buildings</u> not more than 3 <u>storeys in building height</u>	All ratings	No limit	8 000	8 000
Between an <u>exit enclosure</u> and the remainder of the <u>floor area</u> except as permitted above	3/4 1 1/2 2	250 after 1/2 h 250 after 1 h 250 after 1 h	645 645 645	645 645 645
In a <u>firewall</u>	1 1/2 3	250 after 1/2 h 250 after 1 h	645 0	0 0
Column 1	2	3	4	5

- (c) the vestibule or corridor contains no occupancy.

SUBSECTION 3.1.7. BUILDING SERVICES IN FIRE SEPARATIONS AND FIRE RATED ASSEMBLIES

Fire stopping
of service
penetrations

3.1.7.1.(1) Piping, tubing, ducts, chimneys, wiring, conduit, electrical outlet boxes and other similar service equipment that penetrate a fire separation or a membrane forming part of an assembly required to have a fire-resistance rating shall be

(a) tightly fitted, or

(b) sealed at the penetration with fire stop materials conforming to Sentence (2).

(2) Fire stop materials in Sentence (1) shall consist of material that will remain in place and prevent the passage of flame when subjected to the standard fire exposure in CAN4-S101, "Standard Methods of Fire Endurance Tests of Building Construction and Materials" for a period of time equal to the fire-protection rating required for the grade of fire separation in Table 3.1.6.A.

Combustibility
of service
penetrations

3.1.7.2.(1) Except as provided in Sentences (2) to (6) and Articles 3.1.4.5. and 3.1.7.3., pipes, ducts, electrical outlet boxes, electrical conduits or other similar service equipment that partly or wholly penetrate an assembly required to have a fire-resistance rating shall be noncombustible unless the assembly has been tested incorporating such equipment.

Wiring in fire
rated assemblies

(2) Electrical or similar wiring enclosed in noncombustible conduit may partly or wholly penetrate an assembly required to have a fire-resistance rating without being incorporated in the assembly at the time of testing as required in Sentence (1).

(3) Wiring, including single wires or groups of wires, with combustible insulation or jacketing that is not enclosed in noncombustible conduit may partly or wholly penetrate a vertical assembly required to have a fire-resistance rating without being incorporated in the assembly at the time of testing as required in Sentence (1) provided the wiring does not exceed 25 mm in overall diameter.

(4) Combustible conduit which is embedded in a concrete floor slab is permitted in an assembly required to have a fire-resistance rating without

being incorporated in the assembly at the time of testing as required in Sentence (1) where the concrete provides at least 50 mm of cover between the conduit and the bottom of the slab.

(5) Combustible outlet boxes are permitted in an assembly required to have a fire-resistance rating without being incorporated in the assembly at the time of testing as required in Sentence (1) provided the opening through the membrane into the box does not exceed 160 cm².

(6) Outlet boxes that penetrate opposite sides of a wall assembly shall be offset where necessary to maintain the integrity of the fire separation.

Piping in fire
rated assemblies

3.1.7.3.(1) Except as permitted in Sentences (2) to (5) and Article 3.1.4.5., combustible piping shall not be used where any part of the piping system partly or wholly penetrates a fire separation required to have a fire-resistance rating or penetrates a membrane that forms part of an assembly required to have a fire-resistance rating.

(2) Combustible piping is permitted to penetrate a fire separation required to have a fire-resistance rating or a membrane that forms part of an assembly required to have a fire-resistance rating provided

(a) the rated assembly incorporating the penetration will resist the passage of flames when subjected to the standard heat exposure criteria in CAN4-S101, "Standard Methods of Fire Endurance Tests of Building Construction and Materials" at a pressure on the exposed side at least 50 Pa (gauge) greater than on the unexposed side, and

(b) the piping is not located in a vertical shaft.

(3) Combustible drain piping is permitted to penetrate a horizontal fire separation provided it leads directly from a noncombustible floor-mounted water closet through a concrete floor slab.

(4) Combustible piping need not conform to Sentence (1) provided the combustible piping is located only on one side of a vertical fire separation and is not located in a vertical shaft.

(5) Combustible piping need not conform to Sentence (1) where the combustible piping penetrates a vertical or horizontal fire separation and the fire

compartments on each side of the fire separation are sprinklered.

Ducts in fire
rated assemblies

3.1.7.4.(1) A membrane ceiling forming a part of an assembly assigned a fire-resistance rating on the basis of Chapter 2, "Fire Performance Ratings" of the Supplement to the NBC 1985 may be pierced by openings leading to ducts within the ceiling space provided such ducts are noncombustible and provided

- (a) a single opening does not exceed 930 cm² in area,
- (b) the aggregate area of all openings does not exceed 1 per cent of the ceiling area of the fire compartment,
- (c) the openings are located at least 2 m apart,
- (d) where an opening exceeds 130 cm² in area, it is protected by a fire stop flap conforming to Chapter 2, "Fire Performance Ratings" of the Supplement to the NBC 1985, and
- (e) asbestos paper is not exposed in supply and return air systems.

(2) A ceiling assembly used as a plenum shall conform to Article 3.5.4.3.

(3) Where a fire-resistive floor and ceiling or roof and ceiling assembly is tested in accordance with Sentence 3.1.5.1., asbestos paper shall not be exposed in supply and return air systems incorporated in the tested assembly.

SUBSECTION 3.1.8. FIREWALLS

Members
framing into
firewalls

3.1.8.1.(1) Except as permitted in Sentence (2), where structural framing members are connected to or supported on a firewall and such members have fire-resistance ratings less than that required for the firewall, the connections and supports for such members shall be designed so that the collapse of the framing members during a fire will not cause the collapse of the firewall.

(2) Sentence (1) does not apply when a firewall consists of 2 separate wall assemblies each tied to its respective building frame but not to each other provided each wall assembly is constructed as a fire separation having 1/2 the fire-resistance rating required for the firewall in Sentences (3) and (4) and designed so that the collapse of one wall assembly will not cause collapse of the other.

Grade of fire
separation

(3) Every required firewall which separates a building or buildings with floor areas containing a Group E or a Group F, Division 1 or 2 major occupancy shall be constructed as a fire separation of noncombustible construction having a fire-resistance rating of at least 4 h, except that where the upper portion of a firewall separates floor areas containing other than Group E or Group F, Division 1 or 2 major occupancies, the fire-resistance rating of the upper portion of the firewall may be reduced to 2 h.

(4) Every required firewall which separates a building or buildings with floor areas containing major occupancies other than Group E or Group F, Division 1 or 2 shall be constructed as a fire separation of noncombustible construction having a fire-resistance rating of at least 2 h.

Fire-resistance
rating

(5) Except for closures, the required fire-resistance rating of every firewall shall be provided by masonry or concrete.

Continuity

(6) Every firewall shall extend from the ground continuously through all storeys of a building or buildings so separated, except that where a firewall is located above a basement storage garage conforming to Article 3.2.1.2., the firewall may terminate at the floor assembly immediately above the storage garage.

Parapets

(7) Except as provided in Sentences (8) and (9), every firewall shall extend above the roof surface to form a parapet not less than

(a) 150 mm in height for a firewall required to have a fire-resistance rating of 2 h, and

(b) 900 mm in height for a firewall required to have a fire-resistance rating of 4 h.

(8) A firewall may terminate on the underside of a reinforced concrete roof slab provided

(a) the roof slab on both sides of the firewall has a

(i) 1 h fire-resistance rating if a firewall is required to have a 2 h fire-resistance rating, or

(ii) 2 h fire-resistance rating if a firewall is required to have a 4 h fire-resistance rating, and

(b) there are no concealed spaces within the roof slab in that portion immediately above the firewall.

(9) Where a firewall separates 2 buildings with roofs at different elevations, the firewall need not extend above the upper roof surface to form a parapet where the difference in elevation between the 2 roofs so separated is greater than 3 m.

Support

(10) A firewall may be supported on the structural frame of the building in buildings of noncombustible construction provided such supporting frame has a fire-resistance rating at least equal to that required for the firewall.

Penetrations
for service

(11) Piping, ducts and conduit shall be installed so that the collapse of such piping, ducts and conduit will not cause collapse of the firewall.

Openings

(12) Openings in a firewall shall conform to the size limits described in Sentences 3.1.6.4.(6) and (7) and the aggregate width of openings shall not exceed 25 per cent of the entire length of the firewall.

(13) Where the external walls of 2 buildings meet at a firewall at an angle of less than 135°, the requirements of Article 3.2.3.10. shall apply.

(14) Except as permitted in Sentence (8), combustible material shall not extend across the end of a firewall.

Combustible
projections

(15) When buildings are separated by a firewall, combustible projections on the exterior of one building, such as balconies, platforms, canopies, eave projections and stairs, that extend outward beyond the end of the firewall, shall not be permitted within 2.4 m of combustible projections and window or door openings of the adjoining building.

SUBSECTION 3.1.9. FIRE STOPS IN CONCEALED SPACES

3.1.9.1. Concealed spaces in interior wall, ceiling and crawl spaces shall be separated from concealed spaces in exterior walls and attic or roof spaces by fire stops conforming to Article 3.1.9.4.

Walls

3.1.9.2.(1) Except as permitted in Sentence (2), fire stops conforming to Article 3.1.9.4. shall be provided to block off concealed spaces within a wall assembly

- (a) at every floor level,
- (b) at every ceiling level where the ceiling forms part of an assembly required to have a fire-resistance rating, and
- (c) so that the maximum horizontal dimension does not exceed 20 m and the maximum vertical dimension does not exceed 3 m.

(2) Fire stops in Sentence (1) are not required provided

- (a) the wall space is filled with insulation,
- (b) the exposed construction materials and any insulation within the wall space are noncombustible, or
- (c) the exposed construction materials and any insulation within the wall space have a flame-spread rating of not more than 25 on any exposed surface or on any surface that would be exposed by cutting through the material in any direction and fire stops are installed so that the vertical distance between them does not exceed 10 m.

Ceilings

(3) In buildings required to be of noncombustible construction, fire stops conforming to Article 3.1.9.4. shall be provided between ceiling furring strips where the ceiling finish exposed within the concealed spaces has a flame-spread rating exceeding 25 so that the maximum area of a concealed space does not exceed 2 m².

Concealed spaces

(4) Fire stops conforming to Article 3.1.9.4. shall be provided

- (a) at all interconnections between concealed vertical and horizontal spaces in interior coved ceilings, drop ceilings and soffits in which the exposed construction materials within the space have a flame-spread rating exceeding 25, and
- (b) at the end of each run and at each floor level in concealed spaces between stair stringers in which the exposed construction materials within the space have a flame-spread rating exceeding 25.

3.1.9.3.(1) Every unsprinklered concealed space within a ceiling or roof assembly of combustible construction, including attic spaces, shall be

separated by construction conforming to Article 3.1.9.4. into compartments not exceeding

- (a) 600 m² in area with no dimension greater than 60 m where the exposed construction materials within the space have a flame-spread rating of 25 or less, and
- (b) 300 m² in area with no dimension greater than 20 m where the exposed construction materials within the space have a flame-spread rating greater than 25.

(2) Every unsprinklered crawl space not considered as a basement in Article 3.2.2.3. shall be separated by construction conforming to Article 3.1.9.4. into compartments not exceeding 600 m² in area with no dimension greater than 30 m.

(3) Every concealed space in exterior cornices, mansard style roofs, balconies and canopies in which the exposed construction materials within the space have a flame-spread rating exceeding 25 shall be separated by construction conforming to Article 3.1.9.4.

- (a) at the points where such concealed spaces extend across the ends of required vertical fire separations, and
- (b) so that the maximum dimension in any concealed space does not exceed 20 m.

Fire stop
materials

3.1.9.4.(1) Except as provided in Sentences (2) to (4), materials used to separate concealed spaces into compartments shall remain in place and prevent the passage of flames for a period of at least 15 min when subjected to the standard fire exposure in CAN4-S101, "Standard Methods of Fire Endurance Tests of Building Construction and Materials."

(2) Gypsum wallboard at least 12.7 mm thick and sheet steel at least 0.38 mm thick need not be tested in conformance with Sentence (1) provided all joints have continuous support.

(3) In buildings required to be of noncombustible construction, wood furring strips described in Subclause 3.1.4.5.(2)(a)(iv) need not be tested in conformance with Sentence (1).

(4) In buildings permitted to be of combustible construction, materials used to separate concealed spaces into compartments may be

- (a) solid lumber not less than 38 mm thick,
- (b) phenolic bonded plywood not less than 12.5 mm thick or waferboard not less than 12.7 mm thick with joints supported, or
- (c) 2 thicknesses of lumber each not less than 19 mm thick with joints staggered, where the width or height of the concealed space is such that more than 1 piece of 38 mm thick lumber is necessary to block off the space.

(5) Openings through materials in Sentences (1) to (4) shall be protected to maintain the integrity of the construction.

(6) Where materials in Sentences (1) to (4) are penetrated by construction elements or by service equipment, fire stop materials shall be used to seal the penetration.

SUBSECTION 3.1.10. FLAME-SPREAD RATING AND SMOKE DEVELOPED CLASSIFICATION

Determination
of flame-spread
rating and
smoke developed
classification

3.1.10.1.(1) Except as provided in Sentences (2) and (3), the flame-spread rating and smoke developed classification of a material, assembly of materials or structural member shall be determined on the basis of at least 3 tests conducted in conformance with CAN4-S102, "Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies."

(2) The flame-spread rating and smoke developed classification of a material or assembly of materials shall be determined on the basis of at least 3 tests conducted in conformance with CAN4-S102.2, "Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Covering, and Miscellaneous Materials and Assemblies," where the material or assembly of materials

- (a) is designed for use in a relatively horizontal position with only its top surface exposed to air,
- (b) cannot be tested in conformance with Sentence (1) without the use of supporting material that is not representative of the intended installation, or
- (c) is thermoplastic.

(3) A material, assembly of materials or a structural member may be assigned a flame-spread

rating and smoke developed classification on the basis of Chapter 2, "Fire Performance Ratings" of the Supplement to the NBC 1985.

SUBSECTION 3.1.11. INTERIOR FINISH

General

3.1.11.1.(1) Interior finish material shall include any material that forms part of the interior surface of a floor, wall, partition or ceiling, such as

- (a) interior cladding of plaster, wood or tile,
- (b) surfacing of fabric, paint, plastic, veneer or wallpaper,
- (c) doors, windows and trim,
- (d) lighting elements such as light diffusers and lenses forming part of the finished surface of the ceiling, and
- (e) carpet material that overlies a floor, when such floor is not intended as the finished floor.

Flame-spread rating

3.1.11.2.(1) Except as otherwise provided in this Subsection, the flame-spread rating of interior wall and ceiling finishes, including glazing and skylights, shall be not more than 150 and shall conform to Table 3.1.11.A.

Exemptions

(2) Doors, other than those in Group A, Division 1 occupancies, need not conform to Sentence (1).

(3) RESERVED.

(4) Where a wall or ceiling finish is required to have a flame-spread rating of less than 150 in Sentence (1), up to 10 per cent of the total wall area and 10 per cent of the total ceiling area is permitted to have a flame-spread rating of not more than 150, except that up to 25 per cent of the total wall area of lobbies described in Sentence 3.4.4.1.(7) is permitted to have a flame-spread rating of not more than 150.

(5) Except in the case of Group A, Division 1 occupancies, combustible doors, skylights, glazing and light diffusers and lenses shall not be considered in the calculation of wall and ceiling areas in Sentence (4).

Residential bathrooms

3.1.11.3.(1) The flame-spread rating of interior wall and ceiling finishes for bathrooms within suites of Group C occupancy shall be not more than 200.

Table 3.1.11.A.
Forming Part of Sentence 3.1.11.2.(1)

<u>Occupancy, Location or Element</u>	<u>Maximum Flame-Spread Rating for Walls and Ceilings</u>	
	<u>Sprinklered</u>	<u>Unsprinklered</u>
Group A, Division 1 <u>occupancies</u> , including doors, skylights, glazing and light diffusers and lenses	150	75
Group B <u>occupancies</u>	150	75
<u>Exits</u> ⁽¹⁾	25	25
Lobbies described in Sentence 3.4.4.1.(7)	25	25
Covered vehicular passageways, except for roof assemblies of <u>heavy timber construction</u> in such passageways	25	25
<u>Vertical service spaces</u>	25	25
Column 1	2	3

Note to Table 3.1.11.A.:

(1) See Articles 3.1.11.7. and 3.4.7.11.

Light diffusers and lenses

(2) The flame-spread rating of combustible light diffusers and lenses in all occupancies other than Group A, Division 1 occupancies may exceed the flame-spread rating limits required elsewhere in this Subsection provided

- (a) they have a flame-spread rating of not more than 250 and a smoke developed classification of not more than 600 when tested in conformance with CAN4-S102.2, "Standard Method of Test for Surface Burning Characteristics of Flooring, Floor Covering, and Miscellaneous Materials and Assemblies,"
- (b) they fall to the bottom of the test apparatus before igniting when tested in conformance with ULC-S102.3, "Standard Method of Fire Test of Light Diffusers and Lenses,"

(c) they are not prevented from falling from the ceiling by construction located beneath the elements, and

(d) they are not used in corridors that are required to be separated from the remainder of the building by a fire separation or in exit shafts unless individual diffusers or lenses do not exceed 1 m^2 in area and are at least 1.2 m apart.

Skylights

3.1.11.4. Individual combustible skylights in corridors that are required to be separated from the remainder of the building by a fire separation shall not exceed 1 m^2 in area and shall be at least 1.2 m apart.

Corridors

3.1.11.5.(1) Except where the building is sprinklered, the interior wall finish of public corridors, corridors used by the public in assembly and institutional occupancies and corridors serving classrooms or patients' bedrooms, including occupancies in such corridors, shall have a maximum flame-spread rating of not more than

(a) 75, or

(b) 25 on the upper half of the wall and 150 on the lower half of the wall.

(2) Except where the building is sprinklered, the interior ceiling finish of corridors and occupancies in Sentence (1) shall have a flame-spread rating of not more than 25.

High buildings

3.1.11.6.(1) Except as permitted in Sentences (2) and (3), and except for combustible plumbing fixtures including wall and ceiling enclosures and for light diffusers and lenses conforming to Sentence 3.1.11.3.(2), the interior wall, ceiling and floor finishes in a building regulated by the provisions of Subsection 3.2.6. shall conform to the flame-spread rating requirements in Article 3.1.11.2. and to the flame-spread rating and smoke developed classification values in Table 3.1.11.B.

(2) Except for buildings of Group B major occupancy and elevator cars, the flame-spread rating and smoke developed classification of interior wall and ceiling finishes need not conform to the values in Table 3.1.11.B. provided the building is sprinklered and the sprinkler system is electrically supervised in conformance with Sentence 3.2.6.2.(6).

Table 3.1.11.B.
Forming Part of Article 3.1.11.6.

Location or Element	Maximum <u>Flame-Spread Rating</u>			Maximum Smoke Developed Classification		
	Wall Surface	Ceiling Surface ⁽¹⁾	Floor Surface	Wall Surface	Ceiling Surface ⁽¹⁾	Floor Surface
<u>Exit stairways, vestibules to exit stairs and lobbies described in Sentence 3.4.4.1.(7)</u>	25	25	25	50	50	50
Corridors not within <u>suites</u>	--	--	300	100	50	500
Elevator cars and vestibules	25	25	300	100	100	300
<u>Service spaces and service rooms</u>	25	25	25	50	50	50
Other locations and elements	--	--	No limit	300	50	No limit
Column 1	2	3	4	5	6	7

Note to Table 3.1.11.B:

(1) See Sentence 3.1.11.3.(2) for lighting elements.

(3) Trim, millwork and doors in exit stairways, vestibules to exit stairs, lobbies described in Sentence 3.4.4.1.(7) and corridors not within suites need not conform to the flame-spread rating and smoke developed classification requirements in Sentence (1) provided

- (a) they have a flame-spread rating of not more than 150 and a smoke developed classification of not more than 300, and
- (b) their aggregate area does not exceed 10 per cent of the area of the wall or ceiling on which they occur.

Noncombustible construction

3.1.11.7.(1) In buildings required to be of noncombustible construction,

- (a) the flame-spread ratings in Article 3.1.4.5. shall apply in addition to the requirements in this Subsection, and
- (b) the flame-spread ratings for exits in this Subsection shall also apply to any surface in the exit that would be exposed by cutting through the material in any direction, except that this requirement does not apply to doors, heavy timber construction in sprinklered buildings and fire-retardant treated wood.

Underground
walkway

3.1.11.8. Except for paint, the interior wall and ceiling finishes of an underground walkway shall be of noncombustible materials.

SUBSECTION 3.1.12. ROOF ASSEMBLIES

Fire-retardant
treated wood
roof system

3.1.12.1.(1) Where a fire-retardant treated wood roof system is used to comply with the requirements of Subsection 3.2.2., the roof deck assembly shall meet the conditions of acceptance of ULC S126M, "Standard Method of Test for Fire Spread Under Roof-Deck Assemblies."

(2) Supports for the roof deck assembly in Sentence (1) shall consist of

- (a) fire-retardant treated wood,
- (b) heavy timber construction,
- (c) noncombustible construction, or
- (d) a combination thereof.

Metal roof
deck
assembly

3.1.12.2.(1) Except as provided in Sentence (2), where a metal roof deck assembly is used to comply with the requirements of Subsection 3.2.2. and supports a combustible material above the deck that may propagate a fire beneath the deck, the roof deck assembly shall meet the conditions of acceptance of ULC S126M, "Standard Method of Test for Fire Spread Under Roof-Deck Assemblies."

(2) The requirements of Sentence (1) may be waived provided

- (a) the roof deck assembly has a fire-resistance rating of at least 3/4 h, or
- (b) the combustible material above the deck is protected on its underside by a thermal barrier conforming to Clause 3.1.4.5.(2)(e).

SUBSECTION 3.1.13. ROOF COVERING

Classification

3.1.13.1. Where a roof covering is required to be a Class A, B or C roof covering, such classification shall be determined in conformance with ULC-S107, "Standard Method of Test for Fire Resistance of Roof Covering Materials."

SUBSECTION 3.1.14. OCCUPANT LOAD

3.1.14.1.(1) The occupant load of a floor area or part of a floor area shall be based on

- (a) the number of seats in assembly occupancies having fixed seats,

Table 3.1.14.A.
Forming Part of Article 3.1.14.1.

Type of Use of <u>Floor Area</u> or Part Thereof	Area per Person, m ²
Assembly uses	
space with fixed seats	See Clause (1)(a)
space with nonfixed seats	0.75
stages for theatrical performances	0.75
space with nonfixed seats and tables	0.95
standing space	0.40
stadia and grandstands	0.60
bowling alleys, pool and billiard rooms	9.30
classrooms	1.85
school shops and vocational rooms	9.30
reading or writing rooms or lounges	1.85
dining, alcoholic beverage and cafeteria space	1.20
rooms for dancing with nonfixed seats and tables	1.50
laboratories in schools	4.60
exhibition halls other than those classified in Group E	2.80
Institutional uses	
treatment and bedroom areas	10.00
detention quarters	11.60
Residential uses	
<u>dwelling units</u>	See Clause (1)(b)
dormitories	4.60
Business and personal services uses	
personal service shops	4.60
offices	9.30
Column 1	2

Table 3.1.14.A. (Cont'd)

Type of Use of <u>Floor Area</u> or Part Thereof	Area per Person, m ²
Assembly uses (cont'd)	
Mercantile uses	
basements and <u>first storeys</u>	3.70
second <u>storeys</u> having a principal entrance from a pedestrian thoroughfare or a parking area	3.70
other <u>storeys</u>	5.60
Industrial uses	
manufacturing or process rooms	4.60
<u>storage garages</u>	46.00
storage spaces (warehouse)	28.00
aircraft hangars	46.00
Other uses	
cleaning and repair goods	4.60
kitchens	9.30
storage	46.00
<u>public corridors</u> intended for <u>occupancies</u> in addition to pedestrian travel	3.70
Column 1	2

(b) 2 persons per bedroom or sleeping area in dwelling units, and

(c) the number of persons

(i) for which the area is designed, or

(ii) determined from Table 3.1.14.A. for occupancies other than those described in Clauses (a) and (b).

(2) Where a floor area or part thereof has been designed for an occupant load other than that determined from Table 3.1.14.A., a permanent sign indicating that occupant load shall be posted in a conspicuous location.

(3) For the purposes of this Article, mezzanines, tiers and balconies shall be regarded as part of the floor area.

(4) Where a room or group of rooms is intended for 2 or more occupancies at different times, the value to be used from Table 3.1.14.A. shall be the value which gives the greatest number of persons for the occupancies concerned.

SUBSECTION 3.1.15. DRAINAGE AND GRADES

3.1.15.1. The building shall be located and the building site graded so that water will not accumulate at or near the building and will not adversely affect any adjacent properties.

SECTION 3.2 SIZE AND OCCUPANCY REQUIREMENTS FOR FIRE SAFETY

SUBSECTION 3.2.1. GENERAL

3.2.1.1.(1) Roof-top enclosures provided for elevator machinery, stairways and service rooms, used for no purpose other than for service to the building, shall not be considered as a storey in calculating the building height.

(2) Space under tiers of seats in buildings of the arena-type shall not be considered as adding to the building height provided such space is used only for a purpose incidental to the major occupancy, of the building, such as for dressing rooms or concession stands.

(3) Except as provided in Sentences (4), (5) and (7), a mezzanine shall not be considered as a storey in calculating the building height provided

- (a) the aggregate area of the mezzanine floor does not exceed 40 per cent of the area of the room or storey in which it is located,
- (b) it is used as an open floor area except as provided in Sentence 3.3.2.12.(2), and
- (c) the space above the mezzanine floor has no visual obstructions more than 1 070 mm above such floors.

(4) Except as provided in Sentence (5), a mezzanine shall not be required to be considered as a storey in calculating building height and need not conform to Sentence (3) where the aggregate area of the mezzanine floor does not exceed 10 per cent of the area of the storey in which it is located.

(5) Except as provided in Sentence (7), where more than 1 level of mezzanine is provided in a room or

storey, each level additional to the first shall be considered as a storey in calculating the building height.

(6) When a mezzanine is required to be considered as a storey, in determining building height, its floor assembly shall be constructed in conformance with the fire separation requirements for "floor assemblies" in Articles 3.2.2.9. to 3.2.2.53.

(7) Mezzanines, elevated walkways and platforms in Group F, Division 2 or 3 major occupancies need not be considered as storeys in calculating building height provided

(a) the building is of noncombustible construction,

(b) except for Clause (c), the mezzanines, elevated walkways and platforms are intended solely for periodic service and maintenance, and

(c) where they are intended to be occupied, no mezzanine, elevated walkway or platform shall have an occupant load greater than 4 persons.

Storage garage considered as separate building

3.2.1.2. Where a basement is used primarily as a storage garage, the basement may be considered as a separate building for the purposes of Subsection 3.2.2. provided the floor above the basement and the exterior walls of the basement above the adjoining ground level are constructed as fire separations of masonry or concrete having a fire-resistance rating of at least 2 h.

Roofs considered as walls

3.2.1.3. For the purposes of this Section any part of a roof that is pitched at an angle of 60° or more to the horizontal and adjoins a space intended for occupancy within a building shall be considered as part of an external wall of the building.

Floor assemblies over basements

3.2.1.4.(1) A floor assembly immediately above a basement shall be constructed as a fire separation having a fire-resistance rating conforming to the requirements for floor assemblies in Articles 3.2.2.9. to 3.2.2.53., but not less than 3/4 h.

(2) All loadbearing walls, columns and arches supporting a floor assembly immediately above a basement shall have a fire-resistance rating at least equivalent to that required in Sentence (1) for the floor assembly.

Provisions to
aid fire
fighting in
basements

3.2.1.5.(1) Except as provided in Sentences (2), (3) and 3.2.2.7.(2), basements shall be sprinklered or shall be subdivided into fire compartments not exceeding 600 m² in area by a fire separation having a fire-resistance rating at least equivalent to that required for the floor assembly immediately above the basement.

(2) An open-air storey need not conform to Sentence (1).

(3) Except as provided in Sentence 3.2.2.7.(2), every storey which exceeds 300 m² and which is more than 50 percent below grade, shall be sprinklered or shall be subdivided into fire compartments not exceeding 300 m² in area by a fire separation having a fire-resistance rating at least equivalent to that required for the floor assembly immediately above the storey.

SUBSECTION 3.2.2. BUILDING SIZE AND CONSTRUCTION RELATIVE TO OCCUPANCY

Application

3.2.2.1.(1) Except as provided in Sentence (3), buildings shall be constructed in conformance with this Subsection to prevent fire spread and collapse caused by the effects of fire.

Unusual
structures

(2) Structures which cannot be identified with the descriptions of buildings in Articles 3.2.2.9. to 3.2.2.53. shall be protected against fire spread and collapse in conformance with good fire protection engineering practice, such as described in the NFPA Fire Protection Handbook, Fifteenth Edition.

Exceptions to
fire protection
requirements

(3) Fire protection is not required for

- (a) steel lintels over openings not more than 2 m wide in loadbearing walls and not more than 3 m wide in non-loadbearing walls,
- (b) steel lintels over openings greater than those in Clause (a) provided such lintels are supported at intervals of not more than 2 m by structural members with the required fire-resistance rating,
- (c) the bottom flanges of shelf angles and plates that are not a part of the structural frame,
- (d) steel members for framework around elevator shaft doorways, steel for the support of

elevator and dumbwaiter guides, counterweights and other such equipment, when entirely enclosed in a shaft and not a part of the structural frame of a building,

- (e) steel members of stairways, including escalators, which are not a part of the structural frame of a building,
- (f) steel members of porches, exterior balconies, exterior stairways, fire escapes, cornices, marquees and other similar appurtenances provided they are outside an exterior wall of a building, and
- (g) loadbearing steel or concrete members wholly or partially outside of a building face in buildings not exceeding 4 storeys in building height and classified as Group A, B, C, D or F, Division 3 major occupancy provided such members are at least 1 m away from any unprotected opening in an exterior wall, or shielded from heat radiation in the event of a fire within a building by construction that will provide the same degree of protection that would be necessary if the member was located inside the building, with the protection extending on either side of the member a distance equal to the projection of the member from the face of the wall.

When lesser restrictions apply

3.2.2.2. When the building height or the building area is such that it could be regulated by more than 1 of Articles 3.2.2.9. to 3.2.2.53. for the same occupancy classification of the building, the least restrictive Article may be used.

Crawl spaces as basements

3.2.2.3.(1) For the purposes of Articles 3.2.1.4. and 3.2.1.5., a crawl space shall be considered as a basement when it exceeds 1.8 m in height between the lowest part of the floor assembly and the ground or other surface below or it is used

- (a) for any occupancy,
- (b) for the passage of flue pipes, or
- (c) as a plenum in combustible construction.

(2) A floor assembly immediately above a crawl space is not required to be constructed as a fire separation and is not required to have a fire-resistance rating provided the crawl space is not considered as a basement in Sentence (1).

Streets	<p>3.2.2.4.(1) Every <u>building</u> shall face a <u>street</u> located in conformance with the requirements for access routes in Sentences 3.2.5.2.(1) to (5).</p> <p>(2) For the purposes of this Section an access route conforming to Article 3.2.5.2. may be considered as a <u>street</u>.</p> <p>(3) A <u>building</u> is considered to face 2 <u>streets</u> when at least 50 per cent of the <u>building</u> perimeter is located within 15 m of the <u>street</u> or <u>streets</u>.</p> <p>(4) A <u>building</u> is considered to face 3 <u>streets</u> when at least 75 per cent of the <u>building</u> perimeter is located within 15 m of the <u>street</u> or <u>streets</u>.</p> <p>(5) Enclosed spaces, tunnels, bridges and similar structures even though used for vehicular or pedestrian traffic are not considered as <u>streets</u> for the purpose of this Part.</p>
Exterior balconies	<p>3.2.2.5.(1) Exterior balconies shall be constructed in accordance with the type of construction required in Articles 3.2.2.9. to 3.2.2.53., as applicable to the <u>occupancy</u> classification of the <u>building</u>.</p>
Exterior passageways	<p>(2) Elevated exterior passageways used as part of a <u>means of egress</u> shall conform to the requirements in Articles 3.2.2.9. to 3.2.2.53. for <u>mezzanines</u>.</p>
Occupancy on a roof	<p>3.2.2.6.(1) Where a portion of a roof supports an <u>occupancy</u>, that portion shall be constructed in conformance with the <u>fire separation</u> requirements for floor assemblies in Articles 3.2.2.9. to 3.2.2.53.</p>
Roof-top enclosures	<p>(2) Roof-top enclosures provided for elevator machinery and <u>service rooms</u>, used for no purpose other than for service to the <u>building</u>, shall be constructed in accordance with the type of construction required in Articles 3.2.2.9. to 3.2.2.53., except that where such enclosure does not exceed 1 <u>storey</u>, it is not required to have a <u>fire-resistance rating</u>.</p> <p>(3) Roof-top enclosures for stairways including <u>exit</u> stairways shall be constructed in conformance with Articles 3.2.2.9. to 3.2.2.53., except that such enclosures need not have a <u>fire-resistance rating</u> nor be constructed as a <u>fire separation</u>.</p>
Storeys below ground	<p>3.2.2.7.(1) Where a <u>building</u> is erected entirely below the adjoining <u>finished</u> ground level and does not extend more than 1 <u>storey</u> below such ground level, the minimum precautions against fire spread and collapse shall be the same as are required for</p>

basements under a building of 1 storey in building height having the same occupancy and building area.

(2) Where a building or portion thereof is erected entirely below the adjoining finished ground level and extends more than 1 storey below such ground level, the following minimum precautions against fire spread and collapse shall be taken:

(a) except as provided in Sentence (3), basements shall be sprinklered,

(b) floor assemblies below such ground level shall be constructed as a

(i) 3 h fire separation where the basements are occupied by Group E or Group F, Division 1 or 2 occupancies, and

(ii) 2 h fire separation where the basements are occupied by any other occupancy, and

(c) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the construction that they support.

(3) The storey immediately below the first storey need not be sprinklered as required by Clause (2)(a) where

(a) it contains only residential occupancies, and

(b) at least 1 unobstructed access opening conforming to Sentence 3.2.5.1.(2) is installed on that storey for each 15 m of wall length in at least 1 wall required to face a street in Subsection 3.2.2.

Sprinklers in
lieu of
structural
fire
resistance

3.2.2.8.(1) Except as provided in Sentence 3.2.2.6.(1), the requirements in Articles 3.2.2.9. to 3.2.2.53. for roof assemblies to have a fire-resistance rating may be waived provided

(a) the building is sprinklered,

(b) the sprinkler system in Clause (a) is electrically supervised in conformance with Sentence 3.2.4.11.(5), and

(c) the operation of the sprinkler system in Clause (a) will cause a signal to be

transmitted to the fire department in conformance with Sentence 3.2.4.7.(3)., and

- (d) the building is not regulated by the provisions of Subsection 3.2.6.

Heavy timber
roofs permitted

(2) For the purposes of Articles 3.2.2.9. to 3.2.2.53., roof assemblies in buildings up to 2 storeys in building height may be of heavy timber construction regardless of building area provided the building is sprinklered and the sprinkler system conforms to Clauses (1)(b) and (c).

GROUP A—ASSEMBLY BUILDINGS

Group A, Division 1, 1 Storey

3.2.2.9.(1) A building classified as Group A, Division 1 shall conform to Sentence (2) provided the building

- (a) is not more than 1 storey in building height,
- (b) has no part of the auditorium floor more than 5 m above or below grade,
- (c) has no occupancy above or below the auditorium other than one which serves it or is dependent on it, and
- (d) is one in which the occupant load of the auditorium floor does not exceed 300 persons.

(2) The building shall be of combustible or noncombustible construction used either singly or in combination, and

- (a) floor assemblies shall be 3/4 h fire separations,
- (b) mezzanines shall have, if of combustible construction, a 3/4 h fire-resistance rating,
- (c) roof assemblies shall have, if of combustible construction, a 3/4 h fire-resistance rating, and
- (d) all loadbearing walls, columns and arches supporting an assembly required to have a fire-resistance rating shall have a 3/4 h fire-resistance rating or shall be of noncombustible construction, except that such

members and assemblies supporting a fire separation shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

Group A, Division 1, 1 Storey

3.2.2.10.(1) A building classified as Group A, Division 1 shall conform to Sentence (2) provided the building

- (a) is not more than 1 storey in building height,
- (b) has less than 40 per cent of the area of the building as 2 storeys for the purpose of
 - (i) development of productions including preparation of scenery and costumes and rehearsal of performers,
 - (ii) organization of performers, scenery and sound equipment before and during a performance,
 - (iii) preparation by performers for a performance,
 - (iv) managerial functions of policy making and administration, or
 - (v) public facilities such as toilets and rest rooms,
- (c) has no occupancy above or below the auditorium other than one which serves or is dependent on it,
- (d) is not more than 600 m² in building area, and
- (e) is one in which the occupant load does not exceed 600 persons.

(2) The building shall be of heavy timber or noncombustible construction used either singly or in combination, and

- (a) floor assemblies shall be 3/4 h fire separations, and
- (b) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

Group A, Division 1, Any Height, Any Area

3.2.2.11.(1) A building classified as Group A, Division 1 shall conform to Sentence (2) provided the building

(a) is not limited in building height, and

(b) is not limited in building area.

(2) The building shall be of noncombustible construction, and

(a) floor assemblies shall be 2 h fire separations,

(b) mezzanines shall have a 1 h fire-resistance rating,

(c) roof assemblies shall have a 1 h fire-resistance rating, and

(d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

Group A, Division 2, 1 Storey

3.2.2.12.(1) A building classified as Group A, Division 2 shall conform to Sentences (2) and (3) provided the building

(a) is not more than 1 storey in building height,

(b) if unsprinklered, is not greater in building area than

(i) 400 m² if facing 1 street,

(ii) 500 m² if facing 2 streets, or

(iii) 600 m² if facing 3 streets, and

(c) if sprinklered, is not greater than twice the area limits of Clause (b).

(2) The building shall be of combustible or noncombustible construction used either singly or in combination.

(3) In buildings without basements the limiting areas may be doubled provided a 1 h fire separation is used to separate the building into fire

compartments each one of which does not exceed the area limits of Clause 1(b) or 1(c).

Group A, Division 2, 1 and 2 Storeys, Sprinklered

3.2.2.13.(1) A building classified as Group A, Division 2 shall conform to Sentence (2) provided the building

(a) is not more than 2 storeys in building height,

(b) is sprinklered, and

(c) is not greater in building area than

(i) 400 m² if facing 1 street,

(ii) 500 m² if facing 2 streets, or

(iii) 600 m² if facing 3 streets.

(2) The building shall be of combustible or noncombustible construction used either singly or in combination.

Group A, Division 2, 1 and 2 Storeys

3.2.2.14.(1) A building classified as Group A, Division 2 shall conform to Sentence (2) provided the building

(a) is not more than 2 storeys in building height, and

(b) if unsprinklered, is not greater in building area than the value in Table 3.2.2.A., and

(c) if sprinklered, is not greater than twice the area limits of Clause (b).

Table 3.2.2.A.

Forming Part of Sentence 3.2.2. 14.(1)

<u>No. of Storeys</u>	<u>Unsprinklered Maximum Area, m²</u>		
	<u>Facing 1 Street</u>	<u>Facing 2 Streets</u>	<u>Facing 3 Streets</u>
1	1 600	2 000	2 400
2	800	1 000	1 200
Column 1	2	3	4

(2) The building shall be of combustible or noncombustible construction used either singly or in combination, and

- (a) floor assemblies shall be fire separations and, if of combustible construction, shall have a $3/4$ h fire-resistance rating,
- (b) mezzanines shall have, if of combustible construction, a $3/4$ h fire-resistance rating,
- (c) roof assemblies shall have, if of combustible construction, a $3/4$ h fire-resistance rating, except that in buildings not exceeding 1 storey in building height, the fire-resistance rating may be waived provided that the roof assembly is constructed as a fire-retardant treated wood roof system conforming to Article 3.1.12.1., and

(i) if unsprinklered, the building area is not greater than

800 m² if facing 1 street,
1 000 m² if facing 2 streets, or
1 200 m² if facing 3 streets, and

(ii) if sprinklered, the building area is not greater than twice the area limits of Subclause (i), and

- (d) all loadbearing walls, columns and arches supporting an assembly required to have a fire-resistance rating shall have a $3/4$ h fire-resistance rating or shall be of noncombustible construction.

Group A, Division 2, up to 5 Storeys, Any Area

3.2.2.15.(1) A building classified as Group A, Division 2 shall conform to Sentences (2) or (3) provided the building

- (a) is not more than 5 storeys in building height, and
- (b) is not limited in building area.

(2) Except as provided in Sentence (3), the building shall be of noncombustible construction, and

- (a) floor assemblies shall be 1 h fire separations,

- (b) mezzanines shall have a 1 h fire-resistance rating,
- (c) except as provided in Sentence (3), roof assemblies shall have a 1 h fire-resistance rating, and
- (d) except as provided in Sentences (3) and (4), all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

(3) A building classified as Group A, Division 2 occupancy that does not exceed 1 storey in building height, and in which the building area is not greater than 3 200 m² if unsprinklered, or 6 400 m² if sprinklered, may be constructed with a roof of heavy timber construction and have columns of heavy timber construction.

(4) Roof assemblies over gymnasiums and swimming pools need not have a fire-resistance rating where every part of the roof assembly is 6 m or more above the main floor or balcony and carries no loads other than normal roof loads, including access walks and ventilating, sound or similar equipment.

Group A, Division 2, Any Height, Any Area

3.2.2.16.(1) A building classified as Group A, Division 2 shall conform to Sentence (2) provided the building

- (a) is not limited in building height, and
- (b) is not limited in building area.

(2) The building shall be of noncombustible construction, and

- (a) floor assemblies shall be 2 h fire separations,
- (b) mezzanines shall have a 1 h fire-resistance rating,
- (c) except as provided in Sentence (3), roof assemblies shall have a 1 h fire-resistance rating, and
- (d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

(3) Roof assemblies over gymnasiums and swimming pools need not have a fire-resistance rating where every part of the roof assembly is 6 m or more above the main floor or balcony and carries no loads other than normal roof loads, including access walks and ventilating, sound or similar equipment.

Group A, Division 3, 1 Storey

3.2.2.17.(1) A building classified as Group A, Division 3 shall conform to Sentence (2) provided the building

(a) is not more than 1 storey in building height,

(b) if unsprinklered, is not greater in building area than

(i) 1 000 m² if facing 1 street,

(ii) 1 250 m² if facing 2 streets, or

(iii) 1 500 m² if facing 3 streets, and

(c) if sprinklered, is not greater than twice the area limits of Clause (b).

(2) The building shall be of combustible or noncombustible construction used either singly or in combination.

Group A, Division 3, 1 Storey

3.2.2.18.(1) A building classified as Group A, Division 3 shall conform to Sentence (2) provided the building

(a) is not more than 1 storey in building height,

(b) if unsprinklered, is not greater in building area than

(i) 2 400 m² if facing 1 street,

(ii) 3 000 m² if facing 2 streets, or

(iii) 3 600 m² if facing 3 streets, and

(c) if sprinklered, is not greater than twice the area limits of Clause (b).

(2) The building shall be of combustible or noncombustible construction used either singly or in combination, and

- (a) mezzanines shall have, if of combustible construction, a $3/4$ h fire-resistance rating,
- (b) roof assemblies shall have, if of combustible construction, a $3/4$ h fire-resistance rating, except that the fire-resistance rating may be waived provided that the roof assembly is constructed as a fire-retardant treated wood roof system conforming to Article 3.1.12.1., and
 - (i) if unsprinklered, the building area is not greater than
 - 1 200 m² if facing 1 street,
 - 1 500 m² if facing 2 streets, or
 - 1 800 m² if facing 3 streets, and
 - (ii) if sprinklered, the building area is not greater than twice the area limits of Subclause (i), and
- (c) all loadbearing walls, columns and arches supporting an assembly required to have a fire-resistance rating shall have a $3/4$ h fire-resistance rating or shall be of noncombustible construction.

Group A, Division 3, 1 and 2 Storeys

3.2.2.19.(1) A building classified as Group A, Division 3 shall conform to Sentence (2) provided the building

- (a) is not more than 2 storeys in building height,
 - (b) if unsprinklered, is not greater in building area than the value in Table 3.2.2.B., and
 - (c) if sprinklered, is not greater than twice the area limits of Clause (b).
- (2) Except as provided in Clauses (c) and (d), the building shall be of noncombustible construction, and
- (a) floor assemblies shall be 1 h fire separations,

- (b) mezzanines shall have a 1 h fire-resistance rating,
- (c) roof assemblies shall have a 3/4 h fire-resistance rating or be of heavy timber construction, and

Table 3.2.2.B.
Forming Part of Sentence 3.2.2.19.(1)

<u>No. of Storeys</u>	Unsprinklered Maximum Area, m ²		
	Facing 1 <u>Street</u>	Facing 2 <u>Streets</u>	Facing 3 <u>Streets</u>
1	4 000	5 000	6 000
2	2 000	2 500	3 000
Column 1	2	3	4

- (d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly, except that arches may be of heavy timber construction.

Group A, Division 3, Any Height, Any Area

3.2.2.20.(1) A building classified as Group A, Division 3 shall conform to Sentence (2) provided the building

- (a) is not limited in building height, and
- (b) is not limited in building area.

(2) The building shall be of noncombustible construction, and

- (a) floor assemblies shall be 2 h fire separations,
- (b) mezzanines shall have a 1 h fire-resistance rating,
- (c) roof assemblies shall have a 1 h fire-resistance rating, and
- (d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

Group A, Division 4

3.2.2.21.(1) A building classified as Group A, Division 4 shall conform to Sentence (2).

(2) The building shall be of noncombustible construction, except that

- (a) the roof assemblies may be of heavy timber construction, and
- (b) the building may be of combustible construction provided
 - (i) the occupant load is less than 1 500 persons, and
 - (ii) the building has a limiting distance of at least 6 m.

GROUP B—INSTITUTIONAL BUILDINGS

Group B, Division 1

3.2.2.22.(1) A building classified as Group B, Division 1 shall conform to Sentence (2).

(2) The building shall be of noncombustible construction, and

- (a) floor assemblies shall be 2 h fire separations,
- (b) mezzanines shall have a 1 h fire-resistance rating,
- (c) roof assemblies shall have a 1 h fire-resistance rating, and
- (d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

Group B, Division 2, 1 Storey

3.2.2.23.(1) A building classified as Group B, Division 2 shall conform to Sentence (2) provided the building

- (a) is not more than 1 storey in building height,
- (b) if unsprinklered, is not greater in building area than 250 m², and

(c) if sprinklered, is not greater than 500 m².

(2) The building shall be of combustible or noncombustible construction used either singly or in combination.

Group B, Division 2, 1 and 2 Storeys

3.2.2.24.(1) A building classified as Group B, Division 2 shall conform to Sentence (2) provided the building

(a) is not more than 2 storeys in building height, and

(b) is not greater in building area than the value in Table 3.2.2.C.

Table 3.2.2.C.

Forming Part of Sentence 3.2.2.24.(1)

<u>No. of Storeys</u>	Uns sprinklered Maximum Area, m ²	<u>Sprinklered</u> Maximum Area, m ²
1	1 000	2 400
2	500	1 600
Column 1	2	3

(2) The building shall be of combustible or noncombustible construction used either singly or in combination, and

(a) floor assemblies shall be 3/4 h fire separations,

(b) mezzanines shall have, if of combustible construction, a 3/4 h fire-resistance rating,

(c) roof assemblies shall have, if of combustible construction, a 3/4 h fire-resistance rating, and

(d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

Group B, Division 2, up to 3 Storeys, Sprinklered

3.2.2.25.(1) A building classified as Group B, Division 2 shall conform to Sentence (2) provided the building

- (a) is not more than 3 storeys in building height,
- (b) is sprinklered, and
- (c) is not greater in building area than the value in Table 3.2.2.D.

Table 3.2.2.D.
Forming Part of Sentence 3.2.2.25.(1)

<u>No. of Storeys</u>	<u>Sprinklered</u> Maximum area, m ²
1	unlimited
2	12 000
3	8 000
Column 1	2

(2) The building shall be of noncombustible construction, and

- (a) floor assemblies shall be 1 h fire separations,
- (b) mezzanines shall have a 1 h fire-resistance rating,
- (c) roof assemblies shall have a 1 h fire-resistance rating, and
- (d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

Group B, Division 2, Any Height, Any Area

3.2.2.26.(1) A building classified as Group B, Division 2 shall conform to Sentence (2) provided the building

- (a) is not limited in building height, and
- (b) is not limited in building area.

(2) The building shall be of noncombustible construction, and

- (a) floor assemblies shall be 2 h fire separations,

- (b) mezzanines shall have a 1 h fire-resistance rating,
- (c) roof assemblies shall have a 1 h fire-resistance rating, and
- (d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

GROUP C—RESIDENTIAL BUILDINGS

Group C, up to 3 Storeys

3.2.2.27.(1) A building classified as Group C shall conform to Sentences (2) and (3) provided the building

Table 3.2.2.E.

Forming Part of Sentence 3.2.2.27.(1)

<u>No. of Storeys</u>	Unsprinklered Maximum Area, m ²		
	Facing 1 <u>Street</u>	Facing 2 <u>Streets</u>	Facing 3 <u>Streets</u>
1	1 200	1 500	1 800
2	900	1 125	1 350
3	600	750	900
Column 1	2	3	4

- (a) is not more than 3 storeys in building height,
 - (b) if unsprinklered, is not greater in building area than the value in Table 3.2.2.E., and
 - (c) if sprinklered, is not greater than twice the area limits of Clause (b).
- (2) The building shall be of combustible or noncombustible construction used either singly or in combination, and
- (a) floor assemblies shall be 3/4 h fire separations,
 - (b) mezzanines shall have, if of combustible construction, a 3/4 h fire-resistance rating, and

- (c) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

(3) When buildings contain dwelling units consisting of more than 1 storey, the provisions of Sentences (1) and (2) shall apply, except that subject to the provision of Sentence 3.3.4.2.(2), the floor assemblies, including floors over basements, which are entirely contained within such dwelling units, shall have a 3/4 h fire-resistance rating and need not be constructed as a fire separation; in buildings where there is no dwelling unit above another, the fire-resistance rating for the floor assemblies within the dwelling unit is waived.

Table 3.2.2.F.
Forming Part of Sentence 3.2.2.28.(1)

<u>No. of Storeys</u>	<u>Unsprinklered Maximum Area, m²</u>		
	<u>Facing 1 Street</u>	<u>Facing 2 Streets</u>	<u>Facing 3 Streets</u>
1	unlimited	unlimited	unlimited
2	6 000	unlimited	unlimited
3	4 000	5 000	6 000
4	3 000	3 750	4 500
5	2 400	3 000	3 600
6	2 000	2 500	3 000
Column 1	2	3	4

Group C, up to 6 Storeys

3.2.2.28.(1) A building classified as Group C shall conform to Sentences (2) and (3) provided the building

- (a) is not more than 6 storeys in building height,
- (b) if unsprinklered, is not greater in building area than the value in Table 3.2.2.F.,
- (c) if sprinklered, is not greater than twice the area limits of Clause (b).

(2) The building shall be of noncombustible construction, and

- (a) floor assemblies shall be 1 h fire separations,

- (b) mezzanines shall have a 1 h fire-resistance rating,
- (c) roof assemblies shall have a 1 h fire-resistance rating, and
- (d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

(3) When buildings contain dwelling units consisting of more than 1 storey, the provisions of Sentences (1) and (2) shall apply, except that subject to the provision of Sentence 3.3.4.2.(2), the floor assemblies, including floors over basements, which are entirely contained within such dwelling units, shall have a 1 h fire-resistance rating and need not be constructed as a fire separation.

Group C, Any Height, Any Area

3.2.2.29.(1) A building classified as Group C shall conform to Sentences (2) and (3) provided the building

- (a) is not limited in building height, and
- (b) is not limited in building area.

(2) The building shall be of noncombustible construction, and

- (a) floor assemblies shall be 2 h fire separations,
- (b) mezzanines shall have a 1 h fire-resistance rating,
- (c) roof assemblies shall have a 1 h fire-resistance rating, and
- (d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

(3) When buildings contain dwelling units consisting of more than 1 storey, the provisions of Sentences (1) and (2) shall apply, except that subject to the provision of Sentence 3.3.4.2.(2), the floor assemblies, including floors over basements, which are entirely contained within such dwelling units, shall have a 1 h fire-resistance rating and need not be constructed as a fire separation.

GROUP D—BUSINESS AND PERSONAL SERVICES BUILDINGS

Group D, 1 and 2 Storeys

3.2.2.30.(1) A building classified as Group D shall conform to Sentence (2) provided the building

- (a) is not more than 2 storeys in building height,
- (b) if unsprinklered, is not greater in building area than the value in Table 3.2.2.G., and
- (c) if sprinklered, is not greater than twice the area limits of Clause (b).

Table 3.2.2.G.

Forming Part of Sentence 3.2.2.30.(1)

No. of <u>Storeys</u>	Unsprinklered Maximum Area, m ²		
	Facing 1 <u>Street</u>	Facing 2 <u>Streets</u>	Facing 3 <u>Streets</u>
1	1 000	1 250	1 500
2	800	1 000	1 200
Column 1	2	3	4

(2) The building shall be of combustible or noncombustible construction used either singly or in combination, and

- (a) floor assemblies shall be fire separations and, if of combustible construction, shall have a $\frac{3}{4}$ h fire-resistance rating, and
- (b) all loadbearing walls, columns and arches supporting an assembly required to have a fire-resistance rating shall have a $\frac{3}{4}$ h fire-resistance rating or shall be of noncombustible construction.

Group D, up to 3 Storeys

3.2.2.31.(1) A building classified as Group D shall conform to Sentence (2) provided the building

- (a) is not more than 3 storeys in building height,
- (b) if unsprinklered, is not greater in building area than the value in Table 3.2.2.H., and

- (c) if sprinklered, is not greater than twice the area limits of Clause (b).

Table 3.2.2.H.

Forming Part of Sentence 3.2.2.31.(1)

<u>No. of Storeys</u>	<u>Unsprinklered Maximum Area, m²</u>		
	<u>Facing 1 Street</u>	<u>Facing 2 Streets</u>	<u>Facing 3 Streets</u>
1	4 800	6 000	7 200
2	2 400	3 000	3 600
3	1 600	2 000	2 400
Column 1	2	3	4

(2) The building shall be of combustible or noncombustible construction used either singly or in combination, and

- (a) floor assemblies shall be fire separations and, if of combustible construction, shall have a $\frac{3}{4}$ h fire-resistance rating,
- (b) mezzanines shall have, if of combustible construction, a $\frac{3}{4}$ h fire-resistance rating,
- (c) roof assemblies shall have, if of combustible construction, a $\frac{3}{4}$ h fire-resistance rating, except that in buildings not exceeding 1 storey in building height, the fire-resistance rating may be waived provided that the roof assembly is constructed as a fire-retardant treated wood roof system conforming to Article 3.1.12.1. and,
 - (i) if unsprinklered, the building area is not greater than
 - 2 400 m² if facing 1 street,
 - 3 000 m² if facing 2 streets, or
 - 3 600 m² if facing 3 streets, and
 - (ii) if sprinklered, the building area is not greater than twice the area limits of Subclause (i), and
- (d) all loadbearing walls, columns and arches supporting an assembly required to have a fire-resistance rating shall have a $\frac{3}{4}$ h

fire-resistance rating or shall be of noncombustible construction.

Group D, up to 6 Storeys

3.2.2.32.(1) A building classified as Group D shall conform to Sentence (2) provided the building

(a) is not more than 6 storeys in building height,

Table 3.2.2.1.
Forming Part of Sentence 3.2.2.32.(1)

No. of <u>Storeys</u>	Unsprinklered Maximum Area, m ²		
	Facing 1 <u>Street</u>	Facing 2 <u>Streets</u>	Facing 3 <u>Streets</u>
1	unlimited	unlimited	unlimited
2	7 200	unlimited	unlimited
3	4 800	6 000	7 200
4	3 600	4 500	5 400
5	2 800	3 600	4 320
6	2 400	3 000	3 600
Column 1	2	3	4

(b) if unsprinklered, is not greater in building area than the value in Table 3.2.2.1., and

(c) if sprinklered, is not greater than twice the area limits of Clause (b).

(2) The building shall be of noncombustible construction, and

(a) floor assemblies shall be 1 h fire separations,

(b) mezzanines shall have a 1 h fire-resistance rating,

(c) roof assemblies shall have a 1 h fire-resistance rating, except that in buildings of 1 storey in building height this requirement is waived, and

(d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

Group D, Any Height, Any Area

3.2.2.33.(1) A building classified as Group D shall conform to Sentence (2) provided the building

(a) is not limited in building height, and

(b) is not limited in building area.

(2) The building shall be of noncombustible construction, and

(a) floor assemblies shall be 2 h fire separations,

(b) mezzanines shall have a 1 h fire-resistance rating,

(c) roof assemblies shall have a 1 h fire-resistance rating, except that in buildings of 1 storey in building height this requirement is waived, and

(d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

GROUP E—MERCANTILE BUILDINGS

Group E, 1 and 2 Storeys

3.2.2.34.(1) A building classified as Group E shall conform to Sentence (2) provided the building

(a) is not more than 2 storeys in building height,

(b) if unsprinklered, is not greater in building area than the value in Table 3.2.2.J., and

Table 3.2.2.J.

Forming Part of Sentence 3.2.2.34.(1)

No. of <u>Storeys</u>	Unsprinklered Maximum Area m ²		
	Facing 1 <u>Street</u>	Facing 2 <u>Streets</u>	Facing 3 <u>Streets</u>
1	1 000	1 250	1 500
2	600	750	900
Column 1	2	3	4

(c) if sprinklered, is not greater than twice the area limits of Clause (b).

(2) The building shall be of combustible or noncombustible construction used either singly or in combination, and

(a) floor assemblies shall be $3/4$ h fire separations, and

(b) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

Group E, up to 3 Storeys

3.2.2.35.(1) A building classified as Group E shall conform to Sentence (2) provided the building

(a) is not more than 3 storeys in building height, and

(b) is not greater in building area than the value in Table 3.2.2.K.

Table 3.2.2.K.

Forming Part of Sentence 3.2.2.35.(1)

No. of <u>Storeys</u>	Unsprinklered Maximum Area, m ²		
	Facing 1 <u>Street</u>	Facing 2 <u>Streets</u>	Facing 3 <u>Streets</u>
1	1 500	1 500	1 500
2	1 200	1 500	1 500
3	800	1 000	1 200
Column 1	2	3	4

No. of <u>Storeys</u>	<u>Sprinklered</u> Maximum Area, m ²		
	Facing 1 <u>Street</u>	Facing 2 <u>Streets</u>	Facing 3 <u>Streets</u>
1	4 800	6 000	7 200
2	2 400	3 000	3 600
3	1 600	2 000	2 400
Column 1	2	3	4

(2) The building shall be of combustible or noncombustible construction used either singly or in combination, and

- (a) floor assemblies shall be $3/4$ h fire separations,
- (b) mezzanines shall have, if of combustible construction, a $3/4$ h fire-resistance rating,
- (c) roof assemblies shall have a $3/4$ h fire-resistance rating, except that in buildings not exceeding 1 storey in building height, the fire-resistance rating may be waived provided the roof assembly is of noncombustible construction or is constructed as a fire-retardant treated wood roof system conforming to Article 3.1.12.1., and
 - (i) if unsprinklered, the building area is not greater than $1\ 500\ m^2$, and
 - (ii) if sprinklered, the building area is not greater than
 - $2\ 400\ m^2$ if facing 1 street,
 - $3\ 000\ m^2$ if facing 2 streets, or
 - $3\ 600\ m^2$ if facing 3 streets, and
- (d) all loadbearing walls, columns and arches supporting an assembly required to have a fire-resistance rating shall have a $3/4$ h fire-resistance rating or shall be of noncombustible construction, except that such members and assemblies supporting a fire separation shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

Group E, up to 6 Storeys

3.2.2.36.(1) A building classified as Group E shall conform to Sentence (2) provided the building

- (a) if unsprinklered, is not more than 3 storeys in building height and is not greater in building area than $1\ 500\ m^2$, and
- (b) if sprinklered, is not more than 6 storeys in building height and is not greater in building area than the value in Table 3.2.2.L.

Table 3.2.2.L.
Forming Part of Sentence 3.2.2.36.(1)

No. of <u>Storeys</u>	<u>Sprinklered</u> Maximum Area, m ²		
	Facing 1 <u>Street</u>	Facing 2 <u>Streets</u>	Facing 3 <u>Streets</u>
1	unlimited	unlimited	unlimited
2	7 500	unlimited	unlimited
3	5 000	6 250	7 500
4	3 750	4 688	5 625
5	3 000	3 750	4 500
6	2 500	3 125	3 750
Column 1	2	3	4

(2) The building shall be of noncombustible construction, and

- (a) floor assemblies shall be 2 h fire separations,
- (b) mezzanines shall have a 1 h fire-resistance rating,
- (c) roof assemblies shall have a 1 h fire-resistance rating, and
- (d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

Group E, Any Height, Any Area, Sprinklered

3.2.2.37.(1) A building classified as Group E shall conform to Sentence (2) provided the building

- (a) is not limited in building height,
- (b) is sprinklered, and
- (c) is not limited in building area.

(2) The building shall be of noncombustible construction, and

- (a) floor assemblies shall be 3 h fire separations,
- (b) mezzanines shall have a 1 1/2 h fire-resistance rating,

- (c) roof assemblies shall have a 1 1/2 h fire-resistance rating, and
- (d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

GROUP F—INDUSTRIAL BUILDINGS

Group F, Division 1, 1 and 2 Storeys

3.2.2.38.(1) A building classified as Group F, Division 1 shall conform to Sentence (2) provided the building

- (a) is not more than 2 storeys in building height,
- (b) if unsprinklered, is not greater in building area than the value in Table 3.2.2.M., and
- (c) if sprinklered, is not greater than twice the area limits of Clause (b).

Table 3.2.2.M.

Forming Part of Sentence 3.2.2.38 (1)

No. of <u>Storeys</u>	Unsprinklered Maximum Area, m ²		
	Facing <u>1 Street</u>	Facing <u>2 Streets</u>	Facing <u>3 Streets</u>
1	800	1 000	1 200
2	400	500	600
Column 1	2	3	4

(2) The building shall be of combustible or noncombustible construction used either singly or in combination, and

- (a) floor assemblies shall be fire separations and if of combustible construction shall have a 3/4 h fire-resistance rating, and
- (b) all loadbearing walls, columns and arches supporting an assembly required to have a fire-resistance rating shall have a 3/4 h fire-resistance rating or shall be of noncombustible construction.

Group F, Division 1, up to 3 Storeys, Sprinklered

3.2.2.39.(1) A building classified as Group F, Division 1 shall conform to Sentence (2) provided the building

- (a) is not more than 3 storeys in building height,
- (b) is sprinklered, and
- (c) is not greater in building area than the value in Table 3.2.2.N.

Table 3.2.2.N.

Forming Part of Sentence 3.2.2.39.(1)

<u>No. of Storeys</u>	<u>Sprinklered</u> Maximum Area, m ²		
	Facing 1 <u>Street</u>	Facing 2 <u>Streets</u>	Facing 3 <u>Streets</u>
1	2 400	3 000	3 600
2	1 200	1 500	1 800
3	800	1 000	1 200
Column 1	2	3	4

(2) The building shall be of heavy timber or noncombustible construction used either singly or in combination, and

- (a) floor assemblies shall be 3/4 h fire separations, and
- (b) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

Group F, Division 1, up to 4 Storeys

3.2.2.40.(1) A building classified as Group F, Division 1 shall conform to Sentence (2) provided the building

- (a) is not more than 4 storeys in building height,
- (b) if unsprinklered, is not greater in building area than the value in Table 3.2.2.O., and

- (c) if sprinklered, is not greater than twice the area limits of Clause (b).

Table 3.2.2.0.

Forming Part of Sentence 3.2.2 40.(1)

<u>No. of Storeys</u>	<u>Unsprinklered</u> Maximum Area, m ²		
	Facing <u>1 Street</u>	Facing <u>2 Streets</u>	Facing <u>3 Streets</u>
1	2 400	3 000	3 600
2	1 200	1 500	1 800
3	800	1 000	1 200
4	600	750	900
Column 1	2	3	4

(2) The building shall be of noncombustible construction, and

- (a) floor assemblies shall be 2 h fire separations,
- (b) mezzanines shall have a 1 h fire-resistance rating,
- (c) roof assemblies shall have a 1 h fire-resistance rating, and
- (d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

Table 3.2.2.P.

Forming Part of Sentence 3.2.2.41.(1)

<u>No. of Storeys</u>	<u>Sprinklered</u> Maximum Area, m ²		
	Facing <u>1 Street</u>	Facing <u>2 Streets</u>	Facing <u>3 Streets</u>
1	6 000	7 500	9 000
2	3 000	3 750	4 500
3	2 000	2 500	3 000
4	1 500	1 875	2 250
Column 1	2	3	4

Group F, Division 1, up to 4 Storeys, Sprinklered

3.2.2.41.(1) A building classified as Group F, Division 1 shall conform to Sentence (2) provided the building

- (a) is not more than 4 storeys in building height,
- (b) is sprinklered, and
- (c) is not greater in building area than the value in Table 3.2.2.P.

(2) The building shall be of noncombustible construction, and

- (a) floor assemblies shall be 3 h fire separations,
- (b) mezzanines shall have a 1 1/2 h fire-resistance rating,
- (c) roof assemblies shall have a 1 1/2 h fire-resistance rating, and
- (d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

Group F, Division 2, 1 and 2 Storeys

3.2.2.42.(1) A building classified as Group F, Division 2 shall conform to Sentence (2) provided the building

- (a) is not more than 2 storeys in building height, and

Table 3.2.2.Q.
Forming Part of Sentence 3.2.2.42.(1)

<u>No. of Storeys</u>	<u>Unsprinklered Maximum Area, m²</u>		
	<u>Facing 1 Street</u>	<u>Facing 2 Streets</u>	<u>Facing 3 Streets</u>
1	1 000	1 250	1 500
2	600	750	900

Table 3.2.2.Q. (Cont'd)

No. of <u>Storeys</u>	<u>Sprinklered</u> Maximum Area, m ²		
	Facing 1 <u>Street</u>	Facing 2 <u>Streets</u>	Facing 3 <u>Streets</u>
1	3 000	3 750	4 500
2	1 200	1 500	1 800
Column 1	2	3	4

(b) is not greater in building area than the value in Table 3.2.2.Q.

(2) The building shall be of combustible or noncombustible construction used either singly or in combination, and

(a) floor assemblies shall be fire separations and, if of combustible construction, shall have a 3/4 h fire-resistance rating, and

(b) all loadbearing walls, columns and arches supporting an assembly required to have a fire-resistance rating shall have a 3/4 h fire-resistance rating or shall be of noncombustible construction.

Group F, Division 2, up to 4 Storeys

3.2.2.43.(1) A building classified as Group F, Division 2 shall conform to Sentence (2) provided the building

(a) is not more than 4 storeys in building height,

Table 3.2.2.R.

Forming Part of Sentence 3.2.2.43.(1)

No. of <u>Storeys</u>	Unsprinklered Maximum Area, m ²		
	Facing 1 <u>Street</u>	Facing 2 <u>Streets</u>	Facing 3 <u>Streets</u>
1	3 200	4 000	4 800
2	1 600	2 000	2 400
3	1 070	1 340	1 600
4	800	1 000	1 200
Column 1	2	3	4

- (b) if unsprinklered, is not greater in building area than the value in Table 3.2.2.R., and
- (c) if sprinklered, is not greater than twice the area limits of Clause (b).

(2) The building shall be of combustible or noncombustible construction used either singly or in combination, and

- (a) floor assemblies shall be 3/4 h fire separations,
- (b) mezzanines shall have, if of combustible construction, a 3/4 h fire-resistance rating,
- (c) roof assemblies shall have, if of combustible construction, a 3/4 h fire-resistance rating, except that in buildings not exceeding 1 storey in building height, the fire-resistance rating may be waived provided that the roof assembly is constructed as a fire-retardant treated wood roof system conforming to Article 3.1.12.1., and
 - (i) if unsprinklered, the building area is not greater than
 - 1 600 m² if facing 1 street,
 - 2 000 m² if facing 2 streets, or
 - 2 400 m² if facing 3 streets, and
 - (ii) if sprinklered, the building area is not greater than twice the area limits of Subclause (i), and
- (d) all loadbearing walls, columns and arches supporting an assembly required to have a fire-resistance rating shall have a 3/4 h fire-resistance rating or shall be of noncombustible construction, except that such members and assemblies supporting a fire separation shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

Group F, Division 2, up to 4 Storeys

3.2.2.44.(1) A building classified as Group F, Division 2 shall conform to Sentence (2) provided the building

- (a) is not more than 4 storeys in building height,
- (b) if unsprinklered, is not greater in building area than the value in Table 3.2.2.S., and
- (c) if sprinklered, is not greater than twice the area limits of Clause (b).

Table 3.2.2.S.
Forming Part of Sentence 3.2.2.44.(1)

<u>No. of Storeys</u>	Unsprinklered Maximum Area, m ²		
	<u>Facing 1 Street</u>	<u>Facing 2 Streets</u>	<u>Facing 3 Streets</u>
1	6 000	7 500	9 000
2	3 000	3 750	4 500
3	2 000	2 500	3 000
4	1 500	1 875	2 250
Column 1	2	3	4

(2) The building shall be of noncombustible construction, and

- (a) floor assemblies shall be 1 h fire separations,
- (b) mezzanines shall have a 1 h fire-resistance rating,
- (c) roof assemblies shall have a 1 h fire-resistance rating, and
- (d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

Group F, Division 2, up to 6 Storeys

3.2.2.45.(1) A building classified as Group F, Division 2 shall conform to Sentence (2) provided the building

- (a) is not more than 6 storeys in building height,
- (b) if unsprinklered, is not greater in building area than the value in Table 3.2.2.T., and
- (c) if sprinklered, is not greater than twice the area limits of Clause (b).

Table 3.2.2.T.
Forming Part of Sentence 3 2.2.45.(1)

No. of <u>Storeys</u>	Unsprinklered Maximum Area. m ²		
	Facing 1 <u>Street</u>	Facing 2 <u>Streets</u>	Facing 3 <u>Streets</u>
1	9 000	11 250	13 500
2	4 500	5 625	6 750
3	3 000	3 750	4 500
4	2 250	2 812	3 375
5	1 800	2 250	2 700
6	1 500	1 875	2 250
Column 1	2	3	4

(2) The building shall be of noncombustible construction, and

- (a) floor assemblies shall be 2 h fire separations,
- (b) mezzanines shall have a 1 h fire-resistance rating,
- (c) roof assemblies shall have a 1 h fire-resistance rating, and
- (d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

Group F, Division 2, Any Height, Any Area, Sprinklered

3.2.2.46.(1) A building classified as Group F, Division 2 shall conform to Sentence (2) provided the building

- (a) is not limited in building height,
- (b) is sprinklered, and
- (c) is not limited in building area.

(2) The building shall be of noncombustible construction, and

- (a) floor assemblies shall be 3 h fire separations,

- (b) mezzanines shall have a 1 1/2 h fire-resistance rating,
- (c) roof assemblies shall have a 1 1/2 h fire-resistance rating, and
- (d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

Group F, Division 3, 1 and 2 Storeys

3.2.2.47.(1) A building classified as Group F, Division 3 shall conform to Sentence (2) provided the building

- (a) is not more than 2 storeys in building height, and
- (b) is not greater in building area than the value in Table 3.2.2.U.

Table 3.2.2.U.
Forming Part of Sentence 3.2.2.47 (1)

<u>No. of Storeys</u>	<u>Unsprinklered Maximum Area, m²</u>		
	<u>Facing 1 Street</u>	<u>Facing 2 Streets</u>	<u>Facing 3 Streets</u>
1	1 600	2 000	2 400
2	800	1 000	1 200

<u>No. of Storeys</u>	<u>Sprinklered Maximum Area, m²</u>		
	<u>Facing 1 Street</u>	<u>Facing 2 Streets</u>	<u>Facing 3 Streets</u>
1	4 800	6 000	7 200
2	1 600	2 000	2 400
Column 1	2	3	4

(2) The building shall be of combustible or noncombustible construction used either singly or in combination, and

- (a) floor assemblies shall be fire separations and, if of combustible construction, shall have a 3/4 h fire-resistance rating, and

- (b) all loadbearing walls, columns and arches supporting an assembly required to have a fire-resistance rating shall have a 3/4 h fire-resistance rating or shall be of noncombustible construction.

Group F, Division 3, up to 4 Storeys

3.2.2.48.(1) A building classified as Group F, Division 3 shall conform to Sentence (2) provided the building

- (a) is not more than 4 storeys in building height,
- (b) if unsprinklered, is not greater in building area than the value in Table 3.2.2.V., and
- (c) if sprinklered, is not greater than twice the area limits of Clause (b).

(2) The building shall be of combustible or noncombustible construction used either singly or in combination, and

- (a) floor assemblies shall be fire separations and, if of combustible construction, shall have a 3/4 h fire-resistance rating,
- (b) mezzanines shall have, if of combustible construction, a 3/4 h fire-resistance rating,
- (c) roof assemblies shall have, if of combustible construction, a 3/4 h fire-resistance rating, except that in buildings not exceeding 1 storey in building height, the fire-resistance rating may be waived provided that the roof assembly is constructed as a fire-retardant treated wood roof system conforming to Article 3.1.12.1., and
- (i) if unsprinklered, the building area is not greater than
- 2 400 m² if facing 1 street,
3 000 m² if facing 2 streets, or
3 600 m² if facing 3 streets, and
- (ii) if sprinklered, the building area is not greater than twice the area limits of Subclause (i), and

- (d) all loadbearing walls, columns and arches supporting an assembly required to have a fire-resistance rating shall have a 3/4 h fire-resistance rating or shall be of noncombustible construction.

Table 3.2.2.V.
Forming Part of Sentence 3.2.2.48.(1)

<u>No. of Storeys</u>	Unsprinklered Maximum Area, m ²		
	Facing 1 <u>Street</u>	Facing 2 <u>Streets</u>	Facing 3 <u>Streets</u>
1	4 800	6 000	7 200
2	2 400	3 000	3 600
3	1 600	2 000	2 400
4	1 200	1 500	1 800
Column 1	2	3	4

Group F, Division 3, 1 Storey

3.2.2.49.(1) A building classified as Group F, Division 3 shall conform to Sentence (2) provided the building

- (a) is not more than 1 storey in building height, and
- (b) if unsprinklered, is not greater in building area than the value in Table 3.2.2.W., and
- (c) if sprinklered, is not greater than twice the area limits of Clause (b).

Table 3.2.2.W.
Forming Part of Sentence 3.2.2.49. (1)

<u>No. of Storeys</u>	Unsprinklered Maximum Area, m ²		
	Facing 1 <u>Street</u>	Facing 2 <u>Streets</u>	Facing 3 <u>Streets</u>
1	5 600	7 000	8 400
Column 1	2	3	4

(2) The building shall be of heavy timber or noncombustible construction used either singly or in combination.

Group F, Division 3, 1 Storey
Any Area, Low Fire Load Occupancy

3.2.2.50.(1) A building classified as Group F, Division 3 shall conform to Sentence (2) provided the building

(a) is not more than 1 storey in building height,

(b) is used solely for low fire load occupancies such as

(i) power generating plants, or

(ii) plants for the manufacture or storage of noncombustible materials such as asbestos, brick, cement, concrete or steel, and

(c) is not limited in building area.

(2) The building shall be of noncombustible construction.

Group F, Division 3
Storage Garages up to 22 m in Height

3.2.2.51.(1) A building used as a storage garage with all storeys constructed as open-air storeys and having no other occupancy above it may have its floor, wall, ceiling and roof assemblies constructed without a fire-resistance rating provided the building is

(a) of noncombustible construction,

(b) not more than 22 m in height, measured between grade and the ceiling level of the top storey,

(c) not more than 10 000 m² in building area, and

(d) designed so that every portion of each floor area is within 60 m of an exterior wall opening.

Group F, Division 3, up to 6 Storeys

3.2.2.52.(1) A building classified as Group F, Division 3 shall conform to Sentence (2) provided the building

(a) is not more than 6 storeys in building height,

- (b) if unsprinklered, is not greater in building area than the value in Table 3.2.2.X., and
- (c) if sprinklered, is not greater than twice the area limits of Clause (b).

Table 3.2.2.X.
Forming Part of Sentence 3.2.2.52.(1)

<u>No. of Storeys</u>	<u>Unsprinklered Maximum Area, m²</u>		
	<u>Facing 1 Street</u>	<u>Facing 2 Streets</u>	<u>Facing 3 Streets</u>
1	unlimited	unlimited	unlimited
2	7 200	9 000	10 800
3	4 800	6 000	7 200
4	3 600	4 500	5 400
5	2 880	3 600	4 320
6	2 400	3 000	3 600
Column 1	2	3	4

(2) The building shall be of noncombustible construction, and

- (a) floor assemblies shall be 1 h fire separations,
- (b) mezzanines shall have a 1 h fire-resistance rating,
- (c) roof assemblies shall have a 1 h fire-resistance rating, and
- (d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

Group F, Division 3, Any Height, Any Area

3.2.2.53.(1) A building classified as Group F, Division 3 shall conform to Sentence (2) provided the building

- (a) is not limited in building height, and
- (b) is not limited in building area.

(2) The building shall be of noncombustible construction, and

- (a) floor assemblies shall be 2 h fire separations, except that such floor

assemblies may be reduced to 1 h fire separations in a storage garage with all storeys constructed as open-air storeys,

- (b) mezzanines shall have a 1 h fire-resistance rating,
- (c) roof assemblies shall have a 1 h fire-resistance rating, and
- (d) all loadbearing walls, columns and arches shall have a fire-resistance rating at least equivalent to that required for the supported assembly.

SUBSECTION 3.2.3. SPATIAL SEPARATION AND EXPOSURE PROTECTION OF BUILDINGS

Area of
unprotected
openings and
limiting
distance

3.2.3.1.(1) Except as provided in Sentence (5), Articles 3.2.3.6. and 3.2.3.8., the area of unprotected openings shall not exceed that set forth in Tables 3.2.3.A. or 3.2.3.B. for the limiting distance applicable to the exposing building face under consideration.

(2) The area of the unprotected openings in an exposing building face shall be the aggregate area of unprotected openings expressed as a percentage of the

Table 3.2.3.A.
Forming Part of Subsection 3.2.3

EXPOSING BUILDING FACE		AREA OF UNPROTECTED OPENING FOR GROUPS A, B, C, D AND F DIVISION 3 OCCUPANCIES PER CENT																										
Max Area m ²	Ratio (L x H or W x L)	Limiting Distance m																										
		0	1.2	1.5	2.0	2.5	3	4	5	6	7	8	9	10	11	12	13	14	16	18	20	25	30	35	40	45	50	
Less than 3	1	0	6	10	16	23	46	91	100																			
3 1 to 10	1	0	6	12	21	33	50	96	100																			
Over 10	1	0	11	18	32	48	68	100																				
Less than 3	1	0	7	9	14	22	33	63	100																			
3 1 to 10	1	0	6	9	15	25	37	81	100																			
Over 10	1	0	10	15	26	39	52	81	100																			
Less than 3	1	0	7	9	12	18	26	49	81	100																		
3 1 to 10	1	0	6	9	10	15	21	30	53	85	100																	
Over 10	1	0	9	14	23	33	45	72	100																			
Less than 3	1	0	7	8	11	16	23	41	66	98	100																	
3 1 to 10	1	0	6	8	11	19	26	45	72	100																		
Over 10	1	0	9	13	21	30	39	62	96	100																		
Less than 3	1	0	7	8	11	15	20	35	56	83	100																	
3 1 to 10	1	0	6	9	12	17	23	39	61	88	100																	
Over 10	1	0	9	12	19	27	36	56	79	100																		
Less than 3	1	0	7	8	10	13	17	28	44	64	89	100																
3 1 to 10	1	0	6	8	11	15	20	32	49	63	93	100																
Over 10	1	0	9	11	17	24	31	47	66	89	100																	
Less than 3	1	0	7	8	9	12	15	24	37	53	77	96	100															
3 1 to 10	1	0	6	8	10	13	18	25	41	57	77	100																
Over 10	1	0	9	10	15	21	28	41	57	76	97	100																
Less than 3	1	0	7	8	9	11	14	21	32	45	67	87	100															
3 1 to 10	1	0	6	8	9	13	16	23	36	43	56	85	100															
Over 10	1	0	9	10	14	20	25	36	57	76	93	100																
Less than 3	1	0	7	8	10	13	18	26	36	48	62	74	96	100														
3 1 to 10	1	0	6	7	10	12	15	23	30	42	52	67	84	100														
Over 10	1	0	9	10	13	17	22	32	41	56	70	86	100															
Less than 3	1	0	7	8	9	11	14	21	32	45	67	87	100															
3 1 to 10	1	0	6	8	9	12	15	23	37	53	77	96	100															
Over 10	1	0	9	10	16	23	33	49	61	74	83	100																
Less than 3	1	0	7	8	9	11	13	17	22	29	37	46	56	67	79	93	100											
3 1 to 10	1	0	6	8	10	12	15	20	26	33	41	50	60	71	84	97	100											
Over 10	1	0	9	11	17	24	31	39	48	57	68	79	91	100														
Less than 3	1	0	7	7	8	9	10	13	16	20	25	30	36	43	51	59	68	87	100									
3 1 to 10	1	0	6	7	9	10	12	15	19	24	29	34	42	47	55	63	72	92	100									
Over 10	1	0	9	10	11	14	19	24	30	36	43	50	57	65	73	82	92	100										
Less than 3	1	0	7	7	8	9	11	14	16	20	24	28	33	38	44	50	64	81	98	100								
3 1 to 10	1	0	6	7	8	9	11	13	16	19	23	27	32	37	42	48	55	69	85	100								
Over 10	1	0	9	10	12	16	21	25	30	36	41	47	53	59	66	73	88	100										
Less than 3	1	0	7	7	7	8	9	10	12	14	16	19	22	25	29	33	37	47	59	71	100							
3 1 to 10	1	0	6	7	7	8	9	10	12	14	16	19	22	25	29	33	37	41	52	63	76	100						
Over 10	1	0	9	10	11	14	18	22	25	30	34	38	43	48	53	58	70	82	96	100								
Less than 3	1	0	7	7	7	7	7	8	9	9	10	12	13	14	16	20	22	27	33	39	58	82	100					
3 1 to 10	1	0	6	7	7	7	8	9	10	11	12	14	15	17	19	21	23	26	31	37	43	63	86	100				
Over 10	1	0	9	10	10	11	13	16	19	21	24	27	30	33	36	39	46	53	60	67	82	100						
Less than 3	1	0	7	7	7	7	7	7	8	8	9	9	10	11	12	13	14	15	17	20	22	32	44	58	74	93	100	
3 1 to 10	1	0	6	7	7	7	7	7	8	8	9	9	10	11	12	13	14	15	16	17	20	22	32	44	58	74	93	100
Over 10	1	0	9	10	10	11	12	14	16	18	21	24	27	30	33	36	39	46	53	60	67	82	100					

Table 3.2.3.B.

Forming Part of Subsection 3.2.3

EXPOSING BUILDING FACE		AREA OF UNPROTECTED OPENING FOR GROUPS E AND F, DIVISION 1 AND 2 OCCUPANCIES PER CENT																													
Max Area m ²	Ratio (L/H or H/L) ⁽¹⁾	Limiting Distance m																													
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	18	20	25	30	35	40	45	50	55	60	65	70		
10	Less than 3 : 1	0	4	5	9	15	23	46	72	100																					
	3 : 1 to 10 : 1	0	4	6	10	17	25	48	79	100																					
	Over 10 : 1	0	5	9	16	24	34	58	91	100																					
15	Less than 3 : 1	0	4	5	7	11	16	32	53	79	100																				
	3 : 1 to 10 : 1	0	4	5	8	13	18	34	55	82	100																				
	Over 10 : 1	0	5	8	13	19	26	43	66	93	100																				
20	Less than 3 : 1	0	4	4	6	9	13	25	40	61	85	100																			
	3 : 1 to 10 : 1	0	4	4	5	7	11	15	27	43	63	87	100																		
	Over 10 : 1	0	5	7	11	17	22	36	53	74	99	100																			
25	Less than 3 : 1	0	4	4	6	8	11	20	33	49	69	92	100																		
	3 : 1 to 10 : 1	0	4	5	7	9	13	22	35	51	71	94	100																		
	Over 10 : 1	0	4	6	10	15	20	31	45	62	82	100																			
30	Less than 3 : 1	0	4	4	5	7	10	18	28	42	58	77	100																		
	3 : 1 to 10 : 1	0	4	4	6	9	12	20	30	44	60	80	100																		
	Over 10 : 1	0	4	6	10	14	18	28	40	54	71	91	100																		
40	Less than 3 : 1	0	4	4	5	6	8	14	22	32	44	59	76	94	100																
	3 : 1 to 10 : 1	0	4	4	6	8	10	16	24	34	47	61	78	91	100																
	Over 10 : 1	0	4	5	8	12	15	23	33	44	57	72	89	100																	
50	Less than 3 : 1	0	4	4	5	6	7	12	18	26	36	48	61	76	93	100															
	3 : 1 to 10 : 1	0	4	4	5	7	9	14	23	29	38	50	63	79	95	100															
	Over 10 : 1	0	4	5	8	11	14	21	29	38	48	61	74	90	100																
60	Less than 3 : 1	0	4	4	4	5	7	11	16	23	31	40	52	64	78	94	100														
	3 : 1 to 10 : 1	0	4	4	5	6	8	12	18	25	33	43	54	66	81	96	100														
	Over 10 : 1	0	4	5	7	10	13	19	26	34	43	53	64	77	92	100															
80	Less than 3 : 1	0	4	4	4	5	6	9	13	18	24	31	40	49	60	71	84	100													
	3 : 1 to 10 : 1	0	4	4	5	6	7	10	15	20	26	33	42	51	61	74	86	100													
	Over 10 : 1	0	4	5	8	9	11	16	22	28	35	43	52	62	73	85	98	100													
100	Less than 3 : 1	0	4	4	4	5	8	11	15	20	26	32	40	48	58	68	70	100													
	3 : 1 to 10 : 1	0	4	4	4	5	6	9	13	17	22	28	35	42	51	60	70	81	100												
	Over 10 : 1	0	4	4	6	8	10	14	19	25	31	37	44	52	61	71	81	92	100												
150	Less than 3 : 1	0	4	4	4	4	5	6	8	11	14	18	23	28	33	40	48	54	70	89	100										
	3 : 1 to 10 : 1	0	4	4	4	5	6	8	10	13	16	20	25	30	36	42	48	56	72	92	100										
	Over 10 : 1	0	4	4	5	7	8	12	16	20	24	29	34	39	46	53	59	67	84	100											
250	Less than 3 : 1	0	4	4	4	4	4	5	7	8	10	12	15	18	22	25	29	34	44	55	68	100									
	3 : 1 to 10 : 1	0	4	4	4	4	5	6	8	10	12	14	17	20	24	27	32	36	46	57	70	100									
	Over 10 : 1	0	4	4	5	6	7	9	12	15	18	21	25	28	32	37	41	46	56	68	81	100									
350	Less than 3 : 1	0	4	4	4	4	4	4	5	6	7	8	10	12	14	16	19	22	25	32	40	49	77	100							
	3 : 1 to 10 : 1	0	4	4	4	4	4	5	6	7	8	10	12	14	16	18	21	24	27	34	43	52	79	100							
	Over 10 : 1	0	4	4	4	4	5	6	8	10	13	15	18	21	23	26	30	33	36	44	53	62	91	100							
500	Less than 3 : 1	0	4	4	4	4	4	4	4	5	6	7	8	9	11	13	14	16	19	24	29	36	55	78	100						
	3 : 1 to 10 : 1	0	4	4	4	4	4	4	5	6	7	8	9	11	13	14	16	18	21	26	31	38	57	80	100						
	Over 10 : 1	0	4	4	4	4	5	7	9	11	13	15	17	19	21	24	26	29	35	41	48	68	92	100							
1 000	Less than 3 : 1	0	4	4	4	4	4	4	4	4	5	6	7	8	9	10	11	14	16	20	29	41	55	71	89	100					
	3 : 1 to 10 : 1	0	4	4	4	4	4	4	4	5	6	7	8	9	10	11	12	13	15	18	22	31	43	57	73	91	100				
	Over 10 : 1	0	4	4	4	4	4	5	6	7	8	9	11	12	13	15	16	18	20	23	26	30	41	53	68	84	100				
2 000	Less than 3 : 1	0	4	4	4	4	4	4	4	4	4	4	5	5	5	6	7	9	10	12	16	22	29	37	46	56	68	80	94	100	
	3 : 1 to 10 : 1	0	4	4	4	4	4	4	4	4	4	4	5	6	7	8	9	10	12	13	18	24	31	39	49	59	70	83	96	100	
	Over 10 : 1	0	4	4	4	4	4	4	4	5	5	6	7	8	9	10	11	12	14	16	18	20	26	33	41	50	59	70	81	94	100

Note to Table 3.2.3.B.
 L = Length of Exposing Building Face
 H = Height of Exposing Building Face
 (Apply whichever ratio is greater)

area of the exposing building face in Tables 3.2.3.A. and 3.2.3.B.

Determination of allowable unprotected openings

(3) For the purposes of Sentences (1) and (2), an exposing building face may be taken as its projection onto a vertical plane located so that no unprotected opening in the exterior wall of the building is between such vertical plane and the line to which the limiting distance is measured and, in such cases, the area of unprotected openings shall be determined from the projection onto this plane of the unprotected openings occurring in the exterior wall.

Determination of fire-resistance rating of exposing building face

(4) For the purposes of Sentence 3.1.5.1.(3) and this Subsection, except for Sentences (1), (2) and (3), an exposing building face may be taken as its projection onto a vertical plane located so that no portion of the exterior wall of the building is between such vertical plane and the line to which the limiting distance is measured and, in such cases, the area of unprotected openings shall be determined from the projection onto this plane of the unprotected openings occurring in the exterior wall.

(5) Where fire fighting facilities cannot reach the building within 10 min of the alarm being received, the limiting distance shall be doubled.

(6) Methods other than that described in Sentences (1) to (5) for determining the maximum allowable area of unprotected openings in an exposing building face may be used provided the standard of safety is not reduced.

Area of exposing building face

3.2.3.2.(1) The area of an exposing building face shall be calculated as the total area of exterior wall facing in 1 direction on any side of a building measured from the finished ground level to the uppermost ceiling, except that where a building is divided by fire separations into fire compartments, the area of exposing building face may be calculated for each fire compartment provided such fire separations

- (a) in Group A, B, C, D or Group F, Division 3 occupancy have a fire-resistance rating at least equal to that required for the floor assembly, but shall not be less than $3/4$ h and need not be more than 1 h, and
- (b) in Group E or Group F, Division 1 or 2 occupancy have a fire-resistance rating of at least 2 h.

3.2.3.3. Where an exterior wall enclosing an attic or roof space is located above an exposing building face, the wall shall be constructed in conformance with the requirements for the exposing building face.

Party walls

3.2.3.4.(1) Every wall that is a party wall shall be constructed as a firewall.

Walls with
limiting distance
less than 1.2 m

(2) Openings in every wall that has a limiting distance of less than 1.2 m shall be protected by closures of other than wired glass or glass block as required for the grade of fire separation of the wall.

Restrictions on
combustible
projections

(3) Except for buildings containing 1 or 2 dwelling units only, combustible projections on the exterior of a wall that are more than 1 m above ground level, such as balconies, platforms, canopies, eave projections and stairs, and that could expose an adjoining building to fire spread, shall not be permitted within 1.2 m of a property line or an imaginary line between 2 buildings on the same property.

Construction of
exposing
building faces

3.2.3.5.(1) Except as permitted in Articles 3.2.3.6. and 3.2.3.7., where a limiting distance shown in Table 3.2.3.A. for a Group A, B, C, D or Group F, Division 3 occupancy classification is such as to permit an exposing building face to have unprotected openings of

- (a) not more than 10 per cent of the exposing building face, the exposing building face shall be of noncombustible construction having a fire-resistance rating of at least 1 h,
- (b) greater than 10 per cent but not greater than 25 per cent of the exposing building face, the exposing building face shall have a fire-resistance rating of at least 1 h and be clad with noncombustible cladding, and
- (c) greater than 25 per cent but less than 100 per cent of the exposing building face, the exposing building face shall have at least a 3/4 h fire-resistance rating.

(2) Except as permitted in Article 3.2.3.6., where a limiting distance shown in Table 3.2.3.B. for a Group E, or Group F, Division 1 or 2 occupancy classification is such as to permit an exposing building face to have unprotected openings of

- (a) not more than 10 per cent of the exposing building face, the exposing building face shall be of noncombustible construction having a fire-resistance rating of at least 2 h,
- (b) greater than 10 per cent but not greater than 25 per cent of the exposing building face, the exposing building face shall have a fire-resistance rating of at least 2 h, and be clad with noncombustible cladding, and
- (c) greater than 25 per cent but less than 100 per cent of the exposing building face, the exposing building face shall have at least a 1 h fire-resistance rating.

(3) In addition to the requirements in Sentences (1) and (2), where foamed plastic insulation is used in an exposing building face in buildings exceeding 3 storeys in building height, it shall be protected on the exterior surface by

- (a) concrete,
- (b) masonry,
- (c) mechanically fastened sheet metal having a melting point of not less than 650°C, or
- (d) other noncombustible material that will remain in place for at least 15 min when tested in conformance with CAN4-S101, "Standard Methods of Fire Endurance Tests of Building Construction and Materials".

Protection of structural members

(4) Structural members, such as beams, columns and arches placed wholly or partly outside an exterior face of a building and which are 3 m or more from the property line or centreline of a public thoroughfare need not be protected from exterior fires.

(5) Structural members in Sentence (4) that are less than 3 m from the property line or centreline of a public thoroughfare shall be protected from exterior fire by fire protection having a fire-resistance rating at least equal to that required for their protection from inside fires in conformance with Articles 3.2.2.9. to 3.2.2.53., or by fire protection having a 1 h fire-resistance rating, whichever is the greater.

(6) Structural members of heavy timber construction such as beams, columns and arches placed wholly or

partly outside an exterior face of a building and which are 3 m or more from the property line or centreline of a public thoroughfare need not be covered with noncombustible cladding.

Unlimited
unprotected
openings

3.2.3.6.(1) An exposing building face of an open-air storey in a storage garage is permitted to have unlimited unprotected openings provided it has a limiting distance of at least 3 m.

(2) An exposing building face in the first storey of a building is permitted to have unlimited unprotected openings provided it faces a street and has a limiting distance of at least 9 m.

One-storey
buildings with
low fire load

3.2.3.7.(1) For any building of Group F, Division 3 occupancy, any non-loadbearing wall comprising an exposing building face may be of noncombustible construction without a fire-resistance rating provided the building

- (a) does not exceed 1 storey in building height,
- (b) is used for low fire load occupancies such as described in Sentence 3.2.2.50.(1), and
- (c) is located so that the limiting distance is not less than 3 m.

Increased
openings
permitted

3.2.3.8.(1) The maximum area of unprotected openings in any exposing building face may be doubled where the building is sprinklered.

(2) The maximum area of unprotected openings in any exposing building face may be doubled where such openings are glazed with glass block or with wired glass conforming to the requirements of Article 3.1.6.10.

Equivalent
opening factor

3.2.3.9. Where the surface temperature on the unexposed surface of a wall assembly exceeds the limitation of a standard fire test as permitted in Sentence 3.1.5.1.(3), an allowance shall be made for the radiation from the hot unexposed wall surface by adding an equivalent area of unprotected opening to the area of actual openings as follows:

$$A_C = A + (A_F \times F_{EO})$$

where A_C = corrected area of unprotected openings including actual and equivalent openings,
 A = actual area of unprotected openings,
 A_F = area of exterior surface of the exposing building face exclusive of openings on which the temperature limitation of the standard test is exceeded, and

F_{EO} = an "equivalent opening factor" derived from the following expression:

$$F_{EO} = \frac{(T_u + 273)^4}{(T_e + 273)^4}$$

where T_u = average temperature in degrees Celsius of the unexposed wall surface at the time the required fire-resistance rating is reached under test conditions, and
 T_e = 892°C for a 3/4 h fire-resistance rating,
 927°C for a 1 h fire-resistance rating,
 and
 1 010°C for a 2 h fire-resistance rating.

Wall exposed to another wall

3.2.3.10.(1) Except as provided in Sentence 3.4.4.1.(5), where an opening in an exterior wall of a fire compartment is exposed to an opening in the exterior wall of another fire compartment, and the planes of the 2 walls are parallel or at an angle of less than 135°, measured from the exterior of the building, the openings in the 2 fire compartments shall be separated by a distance at least equal to D_o where

$$D_o = 2D - \left(\frac{\theta}{90} \times D \right), \text{ but in no case less than } 1$$

where D = the greater required limiting distance for the exposing building faces of the 2 fire compartments, and

θ = the angle made by the intersecting planes of the exposing building faces of the 2 fire compartments, (in the case where the exterior walls are parallel and face each other, $\theta = 0^\circ$).

(2) The exterior wall of each fire compartment in Sentence (1) within the distance, D_o , shall have a fire-resistance rating not less than that required for the interior vertical fire separation between the compartment and the remainder of the building.

Walls exposed to adjoining roof

3.2.3.11.(1) Except as permitted in Sentence 3.2.3.14.(4), where a wall in a building is exposed to a fire hazard from an adjoining roof of a separate unsprinklered fire compartment in the same building, and the exposed wall contains windows within 3 storeys vertically and 5 m horizontally of such roof, the roof shall contain no skylights within 5 m of the exposed wall.

Protection of exposed soffits

(2) Except as permitted in Sentences (4) and (5), where there is a common attic or roof space above

more than 2 suites of residential occupancy, or above more than 2 patients' bedrooms, and the soffit of a roof overhang adjacent to this space is located over a window or door opening within 2.5 m of the overhang, the soffit shall be protected by

- (a) noncombustible material having a minimum thickness of at least 0.38 mm and having a melting point of at least 650°C,
- (b) not less than 11 mm thick plywood,
- (c) not less than 12.7 mm thick waferboard, or
- (d) not less than 11 mm thick lumber.

(3) The soffit protection required in Sentence (2) shall extend the full width of the opening and to at least 1.2 m on either side of it, with no unprotected opening into the soffit within this limit.

(4) Where an eave overhang is completely separated from the remainder of the attic or roof space by fire stopping, the requirements in Sentence (2) do not apply.

(5) Where an attic or roof space, including its adjoining eave overhangs, is separated by construction conforming to Article 3.1.9.4. into compartments such that the resulting spaces are not common to more than 2 suites of residential occupancy or 2 patients' bedrooms, the requirements in Sentence (2) do not apply.

Roof coverings

3.2.3.12.(1) Except as provided in Sentence (2), every building shall have a Class A, B or C roof covering as described in Subsection 3.1.13.

(2) Roof coverings are not required to have a Class A, B or C rating for

- (a) tents and air-supported structures, and
- (b) buildings of Group A, Division 2 occupancy not exceeding 2 storeys in building height and not exceeding 1 000 m² in building area provided the roof covering is underlaid with noncombustible material.

Covered vehicular passageways

3.2.3.13.(1) A covered vehicular passageway shall

- (a) be of noncombustible construction when constructed below grade, and

- (b) be separated from every building or part of a building adjoining it by a fire separation having a fire-resistance rating of at least 1 1/2 h where it is designed as a receiving or shipping area.

Separation of
buildings
connected by
walkways

3.2.3.14.(1) Except as provided in Sentence 3.2.3.15.(2), where buildings are connected by a walkway, each building shall be separated from the walkway by at least a 3/4 h fire separation.

(2) Except as provided in Sentence (3), a walkway connected to a building required to be of noncombustible construction shall also be of noncombustible construction.

(3) A walkway connected to a building required to be of noncombustible construction is permitted to be of heavy timber construction provided

- (a) at least 50 per cent of the area of any enclosing perimeter walls is open to the outdoors, and

- (b) the walkway is at ground level.

Roof exposure

(4) The requirements of Sentence 3.2.3.11.(1) shall not apply where walkways are of noncombustible construction.

Underground
walkway

3.2.3.15.(1) An underground walkway shall not be designed or used for any purpose other than pedestrian travel unless such other purpose is permitted and any space in the walkway containing an occupancy is sprinklered.

(2) Buildings connected by an underground walkway shall be separated from the walkway by a 1 h fire separation.

(3) An underground walkway shall be of noncombustible construction suitable for underground location.

(4) Smoke barrier doors shall be installed in underground walkways at intervals not exceeding 100 m, or the travel distance from the door of an adjacent room or space to the nearest exit shall not exceed 1 1/2 times the least allowable travel distance for any of the adjacent occupancies as prescribed in Sentence 3.4.2.4.(1).

SUBSECTION 3.2.4. FIRE ALARM AND DETECTION SYSTEMS

Where required

3.2.4.1.(1) Except as provided in Sentences (2) and (3), a fire alarm system shall be installed when the

occupant load in Table 3.2.4.A. for any major occupancy is exceeded, and in buildings containing

- (a) more than 3 storeys, including storeys below grade,
- (b) a total occupant load greater than 300, other than in open air seating areas, or
- (c) an occupant load greater than 150 above or below the first storey, other than in open air seating areas.

Table 3.2.4.A.
Forming Part of Sentence 3.2.4.1.(1)

<u>Major Occupancy Classification</u>	<u>Occupant Load Above which a Fire Alarm System Is Required</u>
Group A, Division 2 (licensed restaurants and beverage establishments only)	150
Group A, Division 2 (schools and colleges only)	40
Group A, Division 4	300 below the seating area
Group B, Division 1 and 2	10 detained or receiving care or treatment
Group C,	10 having sleeping accommodation
Group F, Division 1	25
Group F, Division 2 and 3	75 above or below the <u>first storey</u>
Column 1	2

(2) A fire alarm system is not required in apartment buildings where not more than 4 dwelling units share a common means of egress, or in buildings 3 storeys or less in building height where each dwelling unit is served by an exterior exit facility leading to ground level.

(3) A fire alarm system is not required in hotels or motels 3 storeys or less in building height where each suite is served by an exterior exit facility leading to ground level.

Continuity of
fire alarm
system

3.2.4.2.(1) Where there are openings through a firewall, other than those for piping, tubing, wiring and conduit, the requirements in this Subsection

shall apply to the floor areas on both sides of the firewall as if they were in the same building.

(2) Except as provided in Sentence (4), where a building contains more than 1 major occupancy and a fire alarm system is required, a single system shall serve all occupancies.

(3) Except as provided in Sentence (4), where a fire alarm system is required in any portion of a building, it shall be installed throughout the building.

(4) Except as provided in Sentence (5), in a building not exceeding 3 storeys in building height, where a vertical fire separation having a fire-resistance rating of at least 1 h separates a portion of the building from the remainder of the building and there are no openings through the fire separation, other than those for piping, tubing, wiring and conduit, the requirements in this Subsection may be applied to each portion so separated as if it were a separate building.

(5) The permission in Sentence (4) to consider separated portions of a building as separate buildings does not apply to service rooms and storage rooms.

Types of systems
required

3.2.4.3.(1) Fire alarm systems shall be

- (a) single stage systems in Group F, Division 1 occupancies,
- (b) 2 stage systems in Group B occupancies other than those described in Clause (c),
- (c) single or 2 stage systems in buildings 3 storeys or less in building height used for children's custodial homes, convalescent homes or orphanages, and
- (d) single or 2 stage systems in all other cases.

Description of
systems

3.2.4.4.(1) A single stage fire alarm system shall, upon the operation of any manually actuated signalling box or fire detector, cause an alarm signal to sound on all audible signal appliances in the system.

(2) A 2 stage fire alarm system shall

- (a) cause an alert signal to sound upon the operation of any manually actuated signalling box or fire detector,

- (b) except for Group B, Division 2 major occupancies, automatically cause an alarm signal to sound if the alert signal is not acknowledged within 5 min of its initiation, and
 - (c) have each manually actuated signalling box equipped so that the use of a key or other similar device causes an alarm signal to sound and continue to sound upon the removal of the key or similar device from the manually actuated signalling box.
- (3) Fire alarm systems in Sentences (1) and (2) may be zone coded so that, upon the operation of any manually actuated signalling box or fire detector,
- (a) a coded alarm signal is sounded for a single stage system or a coded alert signal is sounded for a 2 stage system indicating the zone of alarm initiation,
 - (b) the coded alert signal or alarm signal is repeated in its entirety at least 4 times, and
 - (c) a continuous alert signal or alarm signal is sounded upon completion of the coded signals in Clause (b) and Sentence (4).
- (4) When a second manually actuated signalling box or fire detector is operated in a system in Sentence (3), in a zone other than that for which the first alert signal or alarm signal was sounded, the coded alert signal or alarm signal for the first zone shall be completed before the coded alert signal or alarm signal for the second zone is repeated at least 4 times.

Installation and testing

3.2.4.5.(1) Fire alarm and voice communication systems shall be installed in conformance with CAN4-S524, "Standard for the Installation of Fire Alarm Systems".

(2) Fire alarm systems shall be tested to ensure satisfactory operation in conformance with CAN4-S537, "Standard for the Verification of Fire Alarm System Installations".

Silencing of alarms

3.2.4.6.(1) Required fire alarm systems shall be designed so that when an alarm signal is activated, it cannot be silenced automatically for at least

(a) 5 min for buildings not required to be equipped with an annunciator, and

(b) 20 min for all other buildings.

(2) Except where a silencing switch is needed to allow for voice communication capability in accordance with Sentences 3.2.4.16.(2) and (3), a required fire alarm system shall not incorporate manual silencing switches other than those installed inside the fire alarm control unit.

Signals to
fire department

3.2.4.7.(1) Where a fire alarm system is required to be installed, and a single stage system is provided, the system shall be designed to notify the fire department in conformance with Sentence (3) that an alarm signal has been initiated in

(a) Group A occupancies having an occupant load of more than 300,

(b) Group B occupancies,

(c) Group F, Division 1 occupancies, or

(d) buildings regulated by the provisions of Subsection 3.2.6.

(2) Where a fire alarm system is required to be installed and a 2 stage system is provided, the system shall be designed to notify the fire department in conformance with Sentence (3) that an alert signal has been initiated.

(3) Except as permitted in Sentence (4), signals to the fire department shall be by way of

(a) the municipal fire alarm system,

(b) an independent central station conforming to NFPA-71, "Installation, Maintenance, and Use of Central Station Signaling Systems," or

(c) a proprietary control centre conforming to NFPA-72D, "Installation, Maintenance, and Use of Proprietary Protective Signaling Systems".

(4) When the facilities in Sentence (3) are not available in the municipality in which the building is to be built, an independent system may be used to transmit signals to the fire department.

(5) Where a required fire alarm system has been installed with no provisions to transmit a signal to

the fire department as indicated in Sentences (2), (3) and (4), a legible, permanently-mounted notice shall be posted at each manually actuated signalling box requesting that the fire department be notified and including the telephone number of that department.

Annunciator and
zone indication
required

3.2.4.8.(1) Except as permitted in Sentences (2), (3) and (4), an annunciator shall be installed inside the building on the street entrance floor in a location that is readily accessible to fire fighters entering the building with separate zone indicators for the activation of the alarm initiating devices

- (a) in each floor area so that the area of coverage for each zone does not exceed 2 000 m²,
- (b) in each fire compartment required to be separated by vertical fire separations having a fire-resistance rating of at least 2 h, other than dwelling units described in Subsection 3.3.4.,
- (c) in each shaft required to be equipped with fire detectors,
- (d) in each air handling system required to be equipped with smoke detectors, and
- (e) required in Articles 3.3.3.5. and 3.3.3.6.

(2) An annunciator need not be provided for a fire alarm system when not more than 1 zone indicator is required in Sentence (1).

(3) A building that is not more than 3 storeys in building height and that has an aggregate area of all storeys, including basements, of not more than 2 000 m², need not conform to Sentence (1).

Exception
for
sprinklers

(4) Where a sprinkler system is used in lieu of heat detectors in conformance with Article 3.2.4.11., the requirements for zone indication in Clauses (1)(a) and (b) are waived provided the activation of the alarm initiating devices is indicated on the annunciator in conformance with the zone indication requirements for the sprinkler system.

Electrical
supervision

(5) Electrical supervision shall be provided for required fire alarm systems.

Emergency
power supply

3.2.4.9.(1) An emergency power supply conforming to Sentences (2), (3) and (4) shall be provided for required fire alarm systems.

(2) The emergency power supply in Sentence (1) shall be from

- (a) a generator conforming to Article 3.2.7.4.,
- (b) batteries, or
- (c) a combination thereof.

(3) The emergency power supply in Sentence (1) shall be capable of providing supervisory power for at least 24 h and emergency power under full load for at least

- (a) 2 h for buildings required to conform to Subsection 3.2.6.,
- (b) 1 h for buildings classified as Group B major occupancy that are not within the scope of Subsection 3.2.6.,
- (c) 5 min for buildings not required to be equipped with an annunciator, and
- (d) 1/2 h for all other buildings.

(4) The emergency power supply in Sentence (1) shall be designed so that there will be automatic transfer to emergency power in the event of a failure of the normal power source.

Fire detectors

3.2.4.10.(1) Fire detectors required in this Article shall be connected to the fire alarm system.

(2) Except as provided in Article 3.2.4.11., where a fire alarm system is required, fire detectors shall be installed in

- (a) storage rooms not within dwelling units,
- (b) service rooms not within dwelling units,
- (c) janitors' closets,
- (d) elevator and dumbwaiter shafts, and
- (e) rooms where hazardous products are to be used or stored.

Heat detectors

(3) Except as provided in Article 3.2.4.11., where a fire alarm system is required, heat detectors shall be installed

- (a) in every room in buildings classified as Group A, Division 1 or Group B major occupancy other than sleeping rooms, and
- (b) in every suite and room not located within a suite in buildings classified as Group C major occupancy and exceeding 3 storeys in building height.

Smoke detectors

(4) Where a fire alarm system is required, smoke detectors shall be installed in

- (a) every sleeping room and corridor in portions of buildings classified as Group B major occupancy,
- (b) every corridor in portions of buildings classified as Group A, Division 1 major occupancy,
- (c) every public corridor in portions of buildings classified as Group C major occupancy, and
- (d) every exit stair shaft.

Duct-type
smoke detectors

(5) Where a fire alarm system is required, every recirculating air handling system shall be designed to prevent the circulation of smoke upon a signal from a duct-type smoke detector where the air handling system

- (a) serves more than 1 storey,
- (b) serves more than 1 suite in a storey,
- (c) serves more than 1 zone required in Sentence 3.3.3.5.(6), or
- (d) serves more than 1 fire compartment required in Sentence 3.3.3.6.(2).

Sprinklers in
lieu of heat
detectors

3.2.4.11.(1) Heat detectors in Article 3.2.4.10. need not be provided where an automatic sprinkler system conforming to Sentences (2) to (5) and Article 3.2.5.5. is installed throughout the floor area.

(2) Sprinkler systems in Sentence (1) shall be equipped with waterflow detecting devices so that each device serves an area on each storey that does

not exceed the system area limits as specified in NFPA 13, "Installation of Sprinkler Systems".

(3) Waterflow detecting devices in Sentence (2) shall be connected to initiate an alert signal or an alarm signal on the fire alarm system.

(4) The activation of each waterflow detecting device in Sentence (2) shall be indicated separately on the fire alarm system annunciator.

(5) The sprinkler system in Sentence (1) shall be electrically supervised to indicate a trouble signal on the building fire alarm system annunciator for each of the following:

- (a) movement of a control valve handle,
- (b) loss of excess water pressure required to prevent false alarms in a wet pipe system,
- (c) loss of air pressure in a dry pipe system,
- (d) loss of air pressure in a pressure tank,
- (e) a significant change in water level in any water storage container used for fire fighting purposes,
- (f) loss of electrical power to any automatically starting electrical fire pump, and
- (g) a temperature approaching the freezing point in any dry pipe valve enclosure or water storage container used for fire fighting purposes.

Manual pull
stations

3.2.4.12. A manually actuated signalling box shall be installed in every floor area near every required exit.

Alert and
alarm signals

3.2.4.13.(1) Alert signals and alarm signals shall be readily distinguishable from each other and from other signals which may be sounded in the building.

(2) In a 2 stage fire alarm system described in Sentence 3.2.4.4.(2), the same audible signal appliances may be used to sound the alert signals and the alarm signals.

(3) If audible signal appliances with voice reproduction capabilities are intended for uses other than fire emergencies, they shall be installed so

that alert signals and alarm signals take priority over all other signals.

(4) In a building or portion thereof intended for use primarily by persons with hearing impairments, visual signal appliances shall be installed in addition to audible signal appliances.

3.2.4.14.(1) Audible signal appliances forming part of a required fire alarm system shall be installed in a building so that alert signals, alarm signals and voice messages can be heard intelligibly throughout the floor area in which they are installed.

(2) Visual signal appliances required in Sentence 3.2.4.13.(4) shall be installed in a building so that the signal from at least 1 appliance is visible throughout the floor area or portion thereof in which they are installed.

Smoke alarms

3.2.4.15.(1) Smoke alarms conforming to ULC-S531, "Standard for Smoke Alarms" shall be installed in each dwelling unit and, except for institutional occupancies required to have a fire alarm system, in each sleeping room not within a dwelling unit.

(2) Smoke alarms within dwelling units shall be installed between each sleeping area and the remainder of the dwelling unit, and where the sleeping areas are served by hallways, the smoke alarms shall be installed in the hallways.

(3) Smoke alarms shall be installed on the ceiling or on the walls between 150 mm and 300 mm below the ceiling in conformance with manufacturer's installation instructions.

(4) Smoke alarms shall be installed with permanent connections to an electrical circuit and shall have no disconnect switches between the overcurrent device and the smoke alarm.

(5) Where more than 1 smoke alarm is required in a dwelling unit, they shall be wired so that the activation of 1 alarm will cause all alarms within the dwelling unit to sound.

Voice communication systems

3.2.4.16.(1) A voice communication system required in Subsection 3.2.6. shall consist of

- (a) a 2-way communication system in each floor area, with connections to the central alarm and control facility and to the mechanical control centre, and

- (b) audible signal appliances with voice reproduction capabilities operated from the central alarm and control facility which are designed and located so as to be heard in all parts of the building, except that this requirement does not apply to elevator cars.

(2) The voice communication system in Sentence (1) shall include provision for silencing the alarm signal in a single stage fire alarm system when voice messages are being transmitted, but only after the alarm signal has sounded initially for at least

- (a) 30 s in Group B, Division 2 major occupancies, and

- (b) 1 min in all other occupancies.

(3) The voice communication system in Sentence (1) shall include provision for silencing the alert signal and the alarm signal in a 2 stage fire alarm system when voice messages are being transmitted, but only after the alert signal has sounded initially for at least

- (a) 30 s in Group B, Division 2 major occupancies, and

- (b) 1 min in all other occupancies.

(4) The voice communication system in Clause (1)(b) shall be designed so that voice instructions can be transmitted selectively to any zone or zones while maintaining an alert signal or alarm signal to the other zones in the building.

(5) The 2-way communication system in Clause (1)(a) shall be installed so that emergency telephones are located in each floor area near exit stair shafts.

SUBSECTION 3.2.5. PROVISIONS FOR FIRE FIGHTING

Access
above grade

3.2.5.1.(1) Except for storeys below the first storey, direct access for fire fighting shall be provided from the outdoors to every storey having its floor level less than 25 m above grade by at least 1 unobstructed window or access panel for each 15 m of wall in each wall required to face a street in Subsection 3.2.2.

(2) An opening for access required in Sentence (1) shall be not less than 1 100 mm high by 550 mm wide, with a sill height of not more than 900 mm above the inside floor.

(3) Access panels above the first storey shall be readily openable from both inside and outside, or the opening shall be glazed with plain glass.

Access
below grade

(4) Direct access from at least 1 street shall be provided from the outdoors to each basement having a horizontal dimension exceeding 25 m; such access may be provided by doors, windows or other means that provide an opening at least 1 100 mm high and 550 mm wide, the sill of which shall be not higher than 900 mm above the inside floor, or by an interior stairway immediately accessible from the outdoors.

Exception for
sprinklers

(5) The requirements of Sentences (1) to (4) need not apply to any storey, including basements, that is sprinklered.

Access through
locked doors

(6) Except for doors in conformance with Sentence 3.4.7.12.(16), in buildings more than 6 storeys in building height where door locking devices are installed which prevent access to floor areas from exit stairs, a master key to fit all such locking devices shall be provided in a designated location accessible to the fire fighters, or the door shall be provided with a wired glass panel not less than 645 cm² in area and located not more than 300 mm from the door opening hardware.

Access on roof

(7) Clearance and access around roof signs or other obstructions shall provide

(a) a passage not less than 900 mm wide by 1 800 mm high, clear of all obstructions except for necessary horizontal supports not more than 600 mm above the roof surface,

(i) around every roof sign, and

(ii) through every roof sign at locations not greater than 15 m apart, and

(b) a clearance of at least 1.2 m between any portion of a roof sign and any opening in the exterior wall face or roof of the building in which it is erected.

Access routes
required

3.2.5.2.(1) Every building which exceeds 3 storeys in building height or 600 m² in building area shall be provided with access routes for fire department vehicles to

(a) the building face having a principal entrance, and

- (b) each building face having access openings for fire fighting as required in Article 3.2.5.1.

Location of
access routes

(2) The access routes in Sentence (1) shall be located so that the principal entrance and every access opening in Clause (1)(b) are located not less than 3 m and not more than 15 m from the closest portion of the access route required for fire-department use, measured horizontally from the face of the building.

(3) Access routes shall be provided to every building so that

(a) for buildings provided with a fire department connection, a fire department pumper vehicle can be located adjacent to the hydrants described in Sentences 3.2.5.4.(10) and 3.2.5.5.(4),

(b) for buildings not provided with a fire department connection, a fire department pumper vehicle can be located so that the length of the access route from a hydrant to the vehicle plus the unobstructed path of travel for the fire fighter from the vehicle to the building is not more than 90 m, and

(c) the unobstructed path of travel for the fire fighter from the vehicle to the building is not more than 45 m.

(4) The unobstructed paths of travel for the fire fighter in Sentence (3) from the vehicle to the building shall be measured from the vehicle to the fire department connection provided for the building, except that where no such connection is provided, the paths of travel shall be measured to the principal entrance of the building.

(5) Where a portion of a building is completely cut off from the remainder of the building so that there is no access to the remainder of the building, the access routes in Sentence (3) shall be located so that the unobstructed path of travel from the vehicle to 1 entrance of each such portion is not more than 45 m.

Design
requirements for
access routes

(6) Where a required access route is provided by means of a roadway or yard, the design and location of that portion of the roadway or yard required for fire department use shall

(a) have a clear width of at least 6 m, unless it can be shown that lesser widths are satisfactory,

- (b) have a centreline radius of not less than 12 m,
- (c) have an overhead clearance of at least 5 m,
- (d) have a change of gradient of not more than 1 in 12.5 over a minimum distance of 15 m,
- (e) be designed to support the expected loads imposed by fire fighting equipment and be surfaced with concrete, asphalt or other material designed to permit accessibility under all climatic conditions,
- (f) have turnaround facilities for any dead-end portion of the access route exceeding 90 m, and
- (g) be connected with a public thoroughfare.

Water supply

3.2.5.3.(1) An adequate water supply for fire fighting shall be provided for every building.

(2) Hydrants shall be located within 90 m horizontally of any portion of a building perimeter which is required to face a street in Subsection 3.2.2.

(3) Equipment forming part of a fire protection system that may be adversely affected by freezing temperatures and which is located in an unheated area shall be adequately protected from freezing.

Standpipe and hose systems required

3.2.5.4.(1) Except as provided in Sentence 3.3.7.6 (7), a standpipe and hose system shall be installed

(a) in every building that is

(i) more than 3 storeys in building height or more than 14 m in height measured between grade and the ceiling of the uppermost storey, or

(ii) greater in building area than the area shown in Table 3.2.5.A. for the applicable building height shown in the Table where the building is not sprinklered and does not exceed 14 m in height measured between grade and the ceiling of the top storey, and

*

(b) in every basement that is regulated by the provisions of Sentence 3.2.2.7.(2).

Table 3.2.5.A.
Forming Part of Sentence 3.2.5.4.(1)

<u>Occupancy Classification</u>	<u>Building Area, m²</u>		
	<u>1 storey</u>	<u>2 storeys</u>	<u>3 storeys</u>
A	2 500	2 000	1 500
B (except hospitals)	2 000	1 500	1 000
Hospitals	500	500	500
C	2 000	1 500	1 000
D	4 000	3 000	2 000
F, Division 1	1 000	1 000	1 000
F, Division 2	2 000	1 500	1 000
F, Division 3	3 000	2 000	1 000
Column 1	2	3	4

Size of hose connections

(2) Where a standpipe and hose system is required, 65 mm diameter hose connections shall be provided, except that 38 mm diameter hose connections are permitted in buildings which,

(a) do not exceed 25 m in height, measured between grade and the ceiling level of the top storey, and

(b) do not exceed 4 000 m² in building area.

(3) Pipes supplying standpipe systems shall be of a size conforming to Table 3.2.5.B., or be hydraulically designed.

Table 3.2.5.B.
Forming Part of Sentence 3.2.5.4.(3)

<u>Size of Building</u>		<u>Minimum Nominal Size of Piping, In.</u>		
<u>Building Height⁽¹⁾</u>	<u>Building Area</u>	<u>Standpipe Risers⁽³⁾</u>	<u>From Street Main to Standpipe Riser</u>	<u>Lateral Extensions⁽²⁾</u>
Up to 25 m	Up to and including 4 000 m ²	2	2	2
	More than 4 000 m ²	4	4	4
Over 25 m	Unlimited Area	6	6	6
Column 1	2	3	4	5

Notes to Table 3.2.5.B.:

- (1) A penthouse that exceeds 50 m² in floor area shall be considered a storey or 3.7 m in height of building for the purpose of this Table.
- (2) Lateral extension means piping from the first riser to the last riser.
- (3) Riser means vertical pipe supplying water to one or more fire hose cabinets.
- (4) Pipe connecting one or more fire hose stations containing 65 mm diameter hose connections to a riser or lateral extension in any single storey shall be of a size conforming to Table 3.2.5.C., or be hydraulically designed.

Table 3.2.5.C.
Forming Part of Sentence 3.2.5.4.(4)

Piping Runouts to Fire Hose Cabinets Containing 38 mm Hose Connections		
Riser Size, in.	Number of Cabinets	Minimum Size of piping, in
4	1	3
	2 or more	4
6	1	3
	2 or 3	4
	4 or more	6
Column 1	2	3

Hose stations

- (5) Hose stations shall be readily accessible and hose valves shall be not more than 1.5 m above the floor.
- (6) Hose stations shall be located
- (a) so that every portion of the building can be reached by a hose stream and is within 3 m of a hose nozzle when the hose is extended, and
 - (b) not more than 5 m from exits serving floor areas, except for the ground floor level.
- (7) A hose station located on one side of a horizontal exit shall be considered to serve only the floor area on that side of such exit.

(8) Hose connections shall be provided with sufficient clearance to permit the use of a standard fire department hose key

(9) Suitable means shall be provided to prevent the pressure on the hose exceeding 620 kPa (gauge) when flowing.

(10) Hose valves shall be provided with suitable connections installed so that leakage past the valve seat will be carried off and prevented from entering the fire hose.

(11) Every hose station shall be equipped with a hose rack filled with not more than 30 m of 38 mm fire hose and the hose rack and fire hose shall be

(a) listed, or

(b) approved by the Factory Mutual Research Corporation.

(12) The hose at hose stations shall be equipped with a shut-off type adjustable spray to straight stream nozzle.

(13) Where a 65 mm hose valve is provided in a hose station, it shall be equipped with a cap and chain for the use of a fire department.

(14) Couplings for fire hose or other fittings used in connection with such couplings shall conform to ULC S513 "Standard for Threaded Couplings for 1 1/2 and 2 1/2 Inch Fire Hose", or ULC S543 "Standard for Internal Lug Quick Connect Couplings for Fire Hose.

(15) Standpipes and hoses shall be installed for each roof enclosure exceeding 50 m² in floor area.

Hose cabinets

(16) Hose rack, nozzle, fire hose and valves shall be in a hose cabinet except that in a Group F occupancy, a hose cabinet need not be provided.

(17) Hose cabinets shall be of sufficient size to contain the equipment mentioned in Sentence (16) and a listed fire extinguisher.

(18) Every hose cabinet shall be provided with a transparent viewing panel at least 5 mm thick constituting at least 70 per cent of the door area.

(19) Every hose cabinet shall be located so that its door, when fully opened, will not obstruct the required width of a means of egress, and when connected to a dry standpipe system it shall be

clearly identified with the words "DRY STANDPIPE SYSTEM".

Standpipe
water supplies

(20) Except for Sentence (21), standpipe systems shall be wet and directly connected to an adequate source of water.

(21) For special applications such as garages, freezers, unheated warehouses and similar applications where freezing of piping might occur, a dry standpipe system may be provided and so arranged through the use of listed devices so as to admit water to the system automatically by opening of a hose valve.

(22) The water supply for a standpipe system serving only a 38 mm hose connection shall be sufficient to provide a minimum flow of 380 L/min for at least 30 minutes at a pressure of at least 450 kPa (gauge) measured at the two highest and most remote hose valves or hose connections, provided that no less than 190 L/min can be supplied from each of the two outlets simultaneously and where the water main pressure is not sufficient to maintain these pressure and flow requirements, pumping equipment shall be provided to ensure that the pressure and flow requirements are met.

(23) Where the standpipe system for a building less than 84 m in height, measured between grade and the ceiling level of the top storey, is required to have 65 mm diameter hose connections, such standpipe system shall

- (a) be equipped with double valved fire hose cabinets having one 38 mm and one 65 mm hose valve,
- (b) have pumping capacity sufficient to supply a minimum flow of 380 L/min for at least 30 minutes at a minimum discharge pressure of 450 kPa (gauge) to the two highest and most remote 38 mm hose valves, provided that not less than 190 L/min can be supplied from each of the two outlets simultaneously, and
- (c) have provision via the Fire Department siamese connection to supply 1890 L/min to the two highest and most remote 65 mm hose valves, provided that not less than 945 L/min can be supplied from each of the two outlets simultaneously.

(24) The standpipe system for a building 84 m or more in height, measured between grade and the ceiling level of the top storey shall

- (a) be equipped with double valved fire hose cabinets having one 38 mm and one 65 mm fire hose valve,
- (b) have pumping capacity sufficient to provide a minimum flow of 1890 L/min for at least 30 minutes at a minimum discharge pressure of 450 kPa (gauge) at the two highest and most remote 65 mm hose valves, provided that not less than 945 L/min can be supplied from each of the two outlets simultaneously, and
- (c) be served by at least two sources of water supply from a public water system.

(25) Pumping equipment for standpipe systems shall operate automatically to stop and start on pressure rise and fall.

(26) Fire pumps and controllers supplying water for standpipe systems described in Sentences (24) and (28) shall be listed and labelled.

(27) Means shall be provided by valving to permit maintenance to every pump serving a standpipe system.

(28) A building 84 m or more in height, measured between grade and the ceiling level of the top storey, shall be provided with a standby fire pump capable of delivering as required in Sentence (24).

(29) A building 84 m or more in height, measured between grade and the ceiling level of the top storey, shall be equipped with water storage capacity at the top of the building to supply a minimum flow of 1890 L/min for at least 30 minutes at remote hose valves or hose connections, provided that not less than 945 L/min can be supplied from each of the two outlets simultaneously.

(30) A standpipe connection shall be upstream of any water meter.

(31) Standpipe risers shall

- (a) be cross-connected at the bottom, and
- (b) where supplied by gravity tanks or pressure tanks, they shall also be cross-connected at the top and a check valve shall, if

necessary, be provided at the base of every riser to prevent circulation.

(32) A control valve located inside a building or an indicator post valve located outside shall be provided for every water supply facility serving a standpipe system and shall be installed in an accessible location.

(33) Check valves shall be installed to prevent water flow from a standpipe system through the fire department pumper connection and every water supply system.

(34) Where a water supply serves both a standpipe system and a system serving other equipment, control valves shall be provided so that either system can be shut off independently and the control valve for the standpipe system shall be electrically supervised.

(35) Sufficient control valves shall be provided to permit shutting off every standpipe riser without interrupting the water supply to other risers.

(36) Every valve controlling a water supply to a standpipe system shall be installed in its normal operating position and shall be clearly identified.

(37) All valves controlling water supplies in a standpipe and hose system, except for hose valves, shall be equipped with an electrically supervised switch for transmitting a signal to an annunciator panel in the event of movement of the valve handle.

(38) Pressure gauges shall be

(a) installed

(i) at every water supply connection,

(ii) at the highest point of every standpipe riser, and

(iii) before and after all pumps,

(b) connected by at least 1/4 in. diameter pipe, and

(c) equipped with a shut-off valve.

Fire Department
connections

(39) A standpipe system shall be served by at least one fire department siamese connection.

(40) Fire department siamese connections for standpipe and hose systems shall be located so that

the distance from a fire department connection to a hydrant does not exceed 45 m and is unobstructed.

(41) Every fire department siamese connection shall be

- (a) located on the outside of a building adjacent to a street or an access route, at least 300 mm and not more than 900 mm above ground level,
- (b) provided with two 65 mm hose connections with female swivel hose couplings having hose threads conforming to the requirements of Sentence (14), and
- (c) provided with sufficient clearance around the couplings to use a standard 14 in. fire department hose spanner for tightening.

(42) Check valves shall be provided in every fire department hose connection except that a two-way hose connection may be provided with a single check valve arranged to shut one outlet when the other is in use.

(43) Shut-off valves shall not be installed in the fire department connection.

(44) An automatic drain valve shall be provided in the fire department connection at its lowest point, between the hose connections and the check valve.

(45) The fire department connection shall be provided with a sign having raised letters at least 25 mm in size, cast in a metal plate or fitting, clearly indicating its intended service and size.

(46) Every fire department connection shall be equipped with a cap or plug to protect the threads and to exclude foreign matter.

Piping, fittings
and hangers

(47) Pipe and tube used in standpipe systems shall

- (a) be designed to withstand a working pressure of not less than 1210 kPa (gauge), and
- (b) conform to the following standards:

- (1) ASTM A120, "Pipe, Steel, Black and Hot-Dipped Zinc-Coated (Galvanized) Welded and Seamless, for Ordinary Uses",

- (ii) ANSI Standard B36.10, "Welded and Seamless Wrought Steel Pipe",
 - (iii) ASTM B75, "Seamless Copper Tube", or
 - (iv) ASTM B251, "General Requirements for Wrought Seamless Copper and Copper-Alloy Tube".
- (48) Brazing alloy for standpipe systems shall conform to AWS Classification BCuP-3 of American Welding Society Specification a5.8-76, "Brazing Filler Metal".
- (49) Ferrous piping for working pressures
- (a) up to 2070 kPa (gauge), shall be at least Schedule 40 pipe except that Schedule 30 pipe may be used for piping 8 in. and larger in size, or
 - (b) over 2070 kPa (gauge), shall be at least Schedule 60 pipe or for sizes not subject to Schedule classification, at least "extra heavy" type.
- (50) Standard fittings shall be at least "extra heavy" type when the pressures may exceed 1210 kPa (gauge).
- (51) All pipe connections shall be made by means of threaded, flanged or welding fittings or other means.
- (52) Where welded connections are used in a standpipe system, welding fittings shall be used.
- (53) Pipe hangers shall be of a type capable of securely supporting the piping.
- (54) A standpipe system shall be provided with drain valves piped to an open drain.
- (55) A drain required in Sentence (54) shall be designed to
- (a) be free from freezing,
 - (b) allow complete draining of the system for repairs, and
 - (c) allow conducting of operational tests.

Valves

- (56) Valves shall be "standard weight" for pressures up to 1210 kPa (gauge) and shall be "extra heavy" for

pressures in excess of 1210 kPa (gauge), and shall be listed.

(57) Hose valves shall be angle-type.

(58) Valves controlling water supplies to standpipe systems shall be outside-screw-and-yoke type or indicator type.

Identification
of piping

(59) When piping for standpipe and hose systems is identified or colour coded such identification shall conform to CGSB 24-GP-3a "Code for Identification and Classification of Piping Systems".

Pressure tests

(60) Every standpipe and hose system, including water supply connections and fire department connections, shall be subjected to hydrostatic tests.

(61) The test pressure shall be at least 345 kPa (gauge) greater than maximum hydrostatic pressure in service, but not less than 1380 kPa (gauge) and maintained for at least 2 hours without pressure loss.

(62) All fire department standpipe systems shall be performance tested upon completion of the installation, to the satisfaction of the chief official.

Sprinkler
systems

3.2.5.5.(1) Except as provided in Sentences (2) to (6), where a sprinkler system is required, it shall be designed, constructed, installed and tested in conformance with NFPA 13, "Installation of Sprinkler Systems".

(2) RESERVED.

(3) Where a water supply serves both a sprinkler system and a system serving other equipment, control valves shall be provided so that either system can be shut off independently.

Fire department
connections

(4) Fire department connections for sprinkler systems shall conform to the requirements for fire department connections for standpipe systems contained in Sentences 3.2.5.4.(39) to (46).

(5) Where a room, chute or bin is required to be sprinklered as indicated in Sentence 3.3.4.2.(3), Article 3.5.2.6. and Sentence 3.5.3.2.(6), the sprinklers may be supplied with water from the fire standpipe system provided that

(a) except for a chute, not more than eight sprinkler heads are required to protect any

room or bin based on a maximum coverage of 12 m² per sprinkler head,

(b) the standpipe riser is

(i) not less than 6 in. in diameter, or

(ii) hydraulically designed to meet combined water supply as specified in Clause (c),

(c) the water supply for a standpipe system, pumping capability and water storage facility, if required, is increased to supply 95 L/min for each sprinkler head over and above the requirements for the standpipe system up to maximum 760 L/min for sprinklers,

(d) a waterflow detecting device shall be installed in the sprinkler main adjacent to the point of connection to the standpipe riser, and

(e) the activation of each waterflow detecting device in Clause (d) shall be indicated separately on the fire alarm system annunciator.

(6) Where a sprinkler system with one or more electrically supervised control valves in order to meet the requirements of this Article, such valves shall be supervised in accordance with Sentence 3.2.5.4.(37) and the same annunciator panel may be utilized for supervision of valves in both standpipe and sprinkler systems.

(7) Open grid and translucent ceilings located below sprinkler systems shall be installed in conformance with NFPA 13, "Installation of Sprinkler Systems", paragraphs 4-4.15 and 4-4.16.

Portable
extinguishers

3.2.5.6. Portable extinguishers shall be provided and installed in conformance with the Ontario Fire Code made under the Fire Marshals Act.

Protection
from freezing

3.2.5.7. Equipment forming part of a fire protection system that may be adversely affected by freezing temperatures and which is located in an unheated area shall be adequately protected from freezing.

**SUBSECTION 3.2.6. ADDITIONAL REQUIREMENTS FOR
HIGH BUILDINGS**

Application

3.2.6.1.(1) This Subsection applies to

- (a) every building of Group A, D, E or F major occupancy classification that is more than
 - (i) 36 m in height, measured between grade and the floor level of the top storey, or
 - (ii) 18 m in height, measured between grade and the floor level of the top storey, and in which the cumulative or total occupant load on or above any storey above grade, other than the first storey, divided by the number of 550 mm units of exit width in all exit stairs at that storey, exceeds 300 persons,
- (b) every building containing a Group B major occupancy in which the floor level of the highest storey of such major occupancy is more than 18 m above grade or every building containing a floor area or part of a floor area located above the third storey designed or intended as a Group B occupancy for patients in bed or infirm persons, and
- (c) every building containing a Group C major occupancy whose floor level is more than 18 m above grade.

**Limits on
smoke movement**

3.2.6.2.(1) Except as permitted otherwise in Sentence (10), every building shall be designed to limit the danger to occupants and fire fighters from exposure to smoke in a building fire as provided in Sentences (2) to (9).

(2) Except as provided in Sentences (5) to (8), every building shall be designed so that during a period of 2 h after the start of a fire all floor areas that are above the lowest exit storey will not contain more than 1 per cent by volume of contaminated air from the fire floor, assuming an outdoor temperature equal to the January design temperature on a 2 1/2 per cent basis determined in conformance with Subsection 2.5.1.

(3) Except as provided in Sentences (6) and (8), every building shall be designed so that during a fire the limit described in Sentence (2) on the

movement of contaminated air into other floor areas is not exceeded in

- (a) each exit stair serving storeys above the lowest exit level, and
- (b) each exit stair serving storeys below the lowest exit level.

(4) Except as provided in Sentences (6) and (8), every building shall be designed so that during a fire the limit described in Sentence (2) on the movement of contaminated air into other floor areas is not exceeded in a shaft that contains a fire fighters' elevator, as required by Article 3 2.6.4.

Areas of refuge

(5) Except in buildings of Group B major occupancy classification, the requirements of Sentence (2) are waived in buildings where occupants above the first storey can enter and be safely accommodated in floor areas or parts of floor areas that

- (a) are designated as areas of refuge on the plans and are identified as such in the building,
- (b) are located on every fifth storey, except that in the case of buildings of Group C major occupancy classification that are more than 75 m in height, measured between grade and the floor level of the top storey, are located on every storey,
- (c) provide not less than 0.5 m² of floor space per ambulatory occupant and 1.5 m² of floor space per non-ambulatory occupant,
- (d) have access corridors and doors leading to each designated part of a floor area on the same storey sufficient to provide one 550 mm unit of width for every 150 persons who may have to use these passages to reach the designated part of a floor area,
- (e) have access stairs from intervening storeys leading to each designated part of a floor area sufficient to provide one 550 mm unit of width for every 100 persons who may have to use these stairs to reach the designated part of a floor area, and
- (f) during a period of 2 h after the start of a fire do not contain more than 1 per cent by volume of contaminated air from the fire

floor, assuming an outdoor temperature equal to the January design temperature on a 2 1/2 per cent basis determined in conformance with Subsection 2.5.1.

Sprinklers

(6) The requirements of Sentences (2) and (4) and Clause 3(a) are waived when a building is sprinklered, and

- (a) the sprinkler system is equipped with a water flow and supervisory signal system that will
 - (i) transmit automatically a water-flow signal directly to the fire department, or through an independent central station,
 - (ii) transmit automatically other supervisory signals to a proprietary control centre or to an independent central station, and
 - (iii) activate a signal at the central alarm and control facility described in Article 3.2.6.7.,
- (b) each stairway that serves storeys above the lowest exit level is vented to the outdoors at or near the bottom of the stair shaft,
- (c) measures are taken to limit movement of smoke from a fire in a floor area below the lowest exit storey into upper storeys, and
- (d) except for exhaust fans in kitchens, washrooms and bathrooms in dwelling units, and except for fans used for smoke venting in Article 3.2.6.5., air moving fans are designed and installed so that in the event of a fire such fans can be stopped by means of a manually operated switch at the central alarm and control facility where the system serves more than 2 storeys.

Exception for lower buildings

(7) The requirements of Sentence (2) are waived in a building of Group A, C, D, E or F major occupancy classification where

- (a) the building is not more than 75 m in height measured between grade and the floor level of the top storey, and
- (b) the number of occupants of above grade storeys does not exceed 3.6 times the area in

square metres of treads and landings in the exit stairs serving these storeys.

Balconies

(8) The requirements of Sentences (2) and (4) and Clause (3)(a) are waived in a building of Group C major occupancy classification

(a) where each suite above grade has direct access to an exterior balcony that

(i) has a depth from the outside face of the exterior wall to the inside edge of the balcony of at least 1.5 m, and

(ii) provides not less than 0.5 m² of balcony space for each occupant of the suite,

(b) where each stairway that serves storeys above the lowest exit level is vented to the outdoors at or near the bottom of the stair shaft,

(c) where measures are taken to limit movement of smoke from a fire in a floor area below the lowest exit storey into upper storeys, and

(d) where, except for exhaust fans in kitchens, washrooms and bathrooms in dwelling units, air moving fans are designed and installed so that in the event of a fire such fans can be stopped by means of a manually operated switch at the central alarm and control facility where the system serves more than 2 storeys.

Connected buildings

(9) Where a building described in Sentence 3.2.6.1.(1) is connected to any other building, measures shall be taken to limit movement of contaminated air from one building into another during a fire.

(10) The requirements of Sentences (2) and (3) need not be provided in a Group C major occupancy apartment building.

Elevators

3.2.6.3.(1) Manual emergency recall operation shall be provided for all elevators serving storeys above the first storey.

(2) Key-operated switches for emergency recall operation in Sentence (1) shall be provided in a conspicuous location at each elevator lobby on the

recall level and at the central alarm and control facility required in Article 3.2.6.7.

(3) In-car emergency service switches shall be provided in all elevator cars.

(4) Automatic emergency recall operation shall be provided for all elevators serving storeys above the first storey in unsprinklered buildings.

(5) The automatic emergency recall feature in Sentence (4) shall be activated by

(a) smoke detectors installed in each elevator lobby on each storey, or

(b) the building fire alarm system.

(6) Smoke detectors in Sentence (5) shall be designed as part of the building fire alarm system.

Fire fighters'
elevators

3.2.6.4.(1) At least 1 elevator shall be provided for use by fire fighters in conformance with Sentences (2) to (6).

(2) The elevator required in Sentence (1) shall have a useable platform area not less than 2.2 m² and shall be capable of carrying a load of 900 kg from a street floor landing to the top floor that it serves in 1 min, except that in every building which is a Group C major occupancy apartment building, the elevator shall be able to accommodate a stretcher in the horizontal position.

(3) Except when Measure K of Chapter 3, "Measures for Fire Safety in High Buildings" of the Supplement to the NBC 1985 is used, each fire fighter's elevator shall

(a) be provided with a closure at each shaft opening so that the interlock mechanism and associated wiring is operational for a period of at least 1 h when the assembly is subjected to the standard fire exposure described in CAN4-S104, "Standard Method for Fire Tests of Door Assemblies,"

(b) be protected with a vestibule containing no occupancy, and separated from the remainder of the floor area by a fire separation having a fire-resistance rating of at least 3/4 h, or

(c) be protected with a corridor containing no occupancy and separated from the remainder of

the building by a fire separation having a fire-resistance rating of at least 1 h.

(4) Except as provided in Sentence (5), an elevator required in Sentence (1) shall be capable of providing transportation from the street floor to every floor normally served by the elevator system that is above grade in the building.

(5) Where it is necessary to change elevators to reach any floor referred to in Sentence (4), the system shall be designed so that not more than 1 change of elevator is required when travelling from a street floor to any floor in the building.

(6) Electrical conductors for the operation of the elevator referred to in Sentence (1) shall be

(a) installed in service spaces conforming to Section 3.5 that do not contain other combustible material, or

(b) protected against exposure to fire from the service entrance of the emergency power supply, or the normal service entrance of the normal power supply to the equipment served, to ensure operation for a period of 1 h when subjected to the standard fire exposure described in CAN4-S 101, "Standard Methods of Fire Endurance Tests of Building Construction and Materials."

Venting to aid
fire fighting

3.2.6.5.(1) Means of venting each floor area to the outdoors shall be provided by windows, wall panels or smoke shafts, except that in a sprinklered floor area, the floor area may be vented by the building exhaust system.

(2) Venting in Sentence (1) shall conform to the requirements in Section 3 of Chapter 3, "Measures for Fire Safety in High Buildings" of the Supplement to the NBC 1985.

(3) Fixed glass windows shall not be used for venting in Sentence (1) where the breaking of such windows may endanger pedestrians below.

(4) Openable windows used for venting in Sentence (1) shall be permanently marked so that they are easily identifiable.

(5) Elevator shafts shall not be used for venting in Sentence (1).

Sprinklers

3.2.6.6.(1) Except for open-air storeys in a storage garage, the following spaces shall be sprinklered:

- (a) every storey, or part thereof, intended for a Group E or Group F, Division 1 or Division 2 occupancy,
- (b) every restaurant or licensed beverage establishment,
- (c) every storey, or part thereof intended for the storage or handling of hazardous substances, and
- (d) every floor area exceeding 1 000 m², except when the floor area is divided into fire compartments not exceeding 1 000 m² in area and separated from the remainder of the floor area by fire separations having fire-resistance rating of at least 1 h.

Central alarm and control facilities

3.2.6.7.(1) A central alarm and control facility shall be provided on the street entrance floor that

- (a) is in a location that is readily accessible to fire fighters entering the building, and
- (b) takes into account the effect of background noise likely to occur under fire emergency conditions, so that the facility can properly perform its required function under such condition.

(2) The central alarm and control facility shall include

- (a) means to control the voice communication system required by Article 3.2.6.8., and provisions to enable messages to be sent to all loudspeakers simultaneously and to individual floor areas and exit stairwells,
- (b) means to indicate audibly and visually alert signals and alarm signals and a switch to
 - (i) silence the audible portion of these signals, and
 - (ii) indicate visually that the audible portion has been silenced,
- (c) means to indicate visually that elevators are on emergency recall operation,

- (d) an annunciator conforming to Article 3.2.4.8.,
- (e) means to transmit alert signals and alarm signals to the fire department in conformance with Article 3.2.4.7.,
- (f) means to release hold-open devices on doors to vestibules,
- (g) means to manually actuate alarm signals in the building and to silence these signals in conformance with Sentences 3.2.4.16.(2) and (3), and
- (h) means to actuate auxiliary equipment or means to communicate with a continually manned auxiliary equipment control centre, as appropriate to the measure for fire safety provided in the building.

Voice
communication
system

3.2.6.8. When the height of a building, measured between grade and the floor of the top storey, exceeds 36 m, or in buildings containing a floor area or part of a floor area located above the third storey, and designed or intended as a Group B occupancy for patients in bed or infirm persons, a voice communication system or systems conforming to Article 3.2.4.16. shall be provided.

Fire protection
of electrical
conductors

3.2.6.9.(1) Where installed in service spaces containing combustible material, electrical conductors used in connection with fire alarm systems and emergency equipment described in Articles 3.2.6.2. to 3.2.6.8. shall be separated from the remainder of the space by a fire separation having a fire-resistance rating of at least 1 h, or shall be protected against fire exposure from the source of power supply to the branch circuits serving the equipment to ensure continued operation for a period of at least 1 h.

(2) Where the central alarm and control facility and the fire alarm control unit are in different fire compartments, the electrical conductors connecting the fire alarm control unit to the central alarm and control facility shall be protected against fire exposure to ensure continued operation for a period of at least 1 h.

Emergency
power

3.2.6.10.(1) The emergency power supply for voice communication systems in Article 3.2.6.8. shall be capable of full operation immediately upon the failure of the normal source of power.

(2) An emergency power supply capable of operating under a full load for at least 2 h shall be provided by an emergency generator or by a separate service not supplied by the same substation as the primary source for

- (a) every elevator serving storeys above the first storey in a building that is more than 36 m in height measured between grade and the floor level of the top storey and every fire fighters' elevator in conformance with Sentence (3),
- (b) water supply for fire fighting in conformance with Article 3.2.5.3., when the supply is dependent on electrical power supplied to the building, and
- (c) fans required for venting in Article 3.2.6.5.

(3) Except as permitted in Sentence (4), the emergency power supply for elevators in Clause (2)(a) shall be capable of operating all fire fighters' elevators plus one additional elevator simultaneously.

(4) When the time required to recall all elevators from the most remote storey to the street floor or transfer lobby on emergency power does not exceed 5 min, the emergency power supply for elevators in Clause (2)(a) need not conform to Sentence (3) provided it is capable of operating at least 1 elevator at a time.

(5) Emergency electric power systems shall be installed in conformance with Article 3.2.7.4.

Testing

3.2.6.11. The systems for control of smoke movement and mechanical venting required in Articles 3.2.6.2. and 3.2.6.5. shall be tested to ensure satisfactory operation in accordance with the procedures described in Appendix C to Chapter 3, "Measures for Fire Safety in High Buildings" of the Supplement to the NBC 1985.

SUBSECTION 3.2.7. LIGHTING AND EMERGENCY POWER SYSTEMS

Minimum lighting levels

3.2.7.1.(1) Every exit, public corridor, corridor providing access to exit for the public or serving patients' bedrooms or classrooms shall be equipped to provide illumination to an average level of at least 50 lx at floor level and at all points such as angles

and intersections at changes of level where there are stairs or ramps.

(2) Rooms and spaces used by the public shall be illuminated as described in Article 9.35.2.9.

Recessed
lighting fixtures

3.2.7.2. Recessed lighting fixtures shall not be located in insulated ceilings unless the fixture is designed for such an installation.

Emergency
lighting

3.2.7.3.(1) Emergency lighting shall be provided to average levels of at least 10 lx at floor or tread level in

(a) exits, corridors used by the public and principal routes providing access to exit in an open floor area where such exits, corridors and routes are below grade or are windowless,

(b) the following parts of buildings required by Subsection 3.2.4. to have a fire alarm system:

(i) exits,

(ii) corridors used by the public,

(iii) principal routes providing access to exit in an open floor area,

(iv) corridors serving patients' bedrooms, and

(v) corridors serving classrooms,

(c) underground walkways,

(d) covered malls, and

(e) floor areas or parts thereof where the public may congregate and which are not provided with natural lighting in

(i) Group A, Division 1 occupancies, and

(ii) Group A, Division 2 and 3 occupancies having an occupant load of 60 persons or more.

Emergency
power supply

(2) An emergency power supply shall be provided to maintain the emergency lighting required by this Subsection from a power source such as batteries or generators that will continue to supply power in the event that the regular power supply to the building

is interrupted and be so designed and installed that upon failure of the regular power it will assume the electrical load automatically for a period of

- (a) 2 h for all buildings within the scope of Subsection 3.2.6.,
- (b) 1 h for buildings of Group B major occupancy classification that are not within the scope of Subsection 3.2.6., and
- (c) 1/2 h for buildings of all other occupancies.

(3) Where self-contained emergency lighting units are used, they shall conform to CSA C22.2 No. 141, "Unit Equipment for Emergency Lighting."

3.2.7.4.(1) Except as provided in Sentences (2) and (3), emergency power systems shall be installed in conformance with CSA C282, "Emergency Electrical Power Supply for Buildings."

(2) Except as provided in Sentence (3), emergency electrical power systems for emergency equipment required in this Part for hospitals and nursing homes shall be installed in conformance with CSA-Z32.4, "Essential Electrical Systems for Hospitals."

(3) Where a liquid or gas fuel-fired engine or turbine for an emergency electric power supply is dependent on a fuel supply from outside the building, such fuel supply shall be provided with a suitably-identified separate shut-off valve outside the building.

SUBSECTION 3.2.8. MEZZANINES AND OPENINGS THROUGH FLOOR ASSEMBLIES

Applications

3.2.8.1.(1) Except as provided in Sentences (4) to (8), 3.2.3.13.(1) and 3.3.4.2.(2), the portions of a floor area or mezzanine that do not terminate at an exterior wall, a firewall or a vertical shaft shall terminate at a vertical fire separation having a fire-resistance rating at least equal to that required for the floor assembly that terminates at the separation or shall be protected in conformance with the requirements in Articles 3.2.8.2. to 3.2.8.10.

(2) The penetration of floor assemblies by exits or vertical services spaces shall conform to the requirements of Sections 3.4 and 3.5.

(3) Where a building containing a Group B major occupancy also contains an interconnected floor space, sleeping rooms forming part of a Group B major occupancy shall not be located within an interconnected floor space.

Exceptions

(4) A mezzanine need not terminate at a vertical fire separation nor be protected in conformance with the requirements in Articles 3.2.8.2. to 3.2.8.10. where the mezzanine

(a) serves a Group A, Division 1 major occupancy,

(b) serves a Group A, Division 3 major occupancy in a building not exceeding 2 storeys in building height,

(c) is not considered as a storey in Sentences 3.2.1.1.(3) or 3.2.1.1.(5) in calculating building height provided

(i) every point on the mezzanine is within 25 m of a point or points on the mezzanine perimeter from which, in the aggregate, an occupant may view 60 percent of the area of the room or storey in which the mezzanine is located, and

(ii) does not contain a Group B occupancy,

(d) is not considered a storey in Sentences 3.2.1.1.(4) or 3.2.1.1.(5) in calculating building height provided the mezzanine does not exceed 500 m² in area and does not contain a Group B occupancy, or

(e) is not considered a storey in calculating building height in Sentence 3.2.1.1.(7).

(5) Except for floors described in Sentence 3.1.8.1.(6) and Article 3.2.1.2., openings through horizontal fire separations for vehicular ramps in storage garages are not required to be protected with closures and need not conform to this Subsection.

(6) Where unprotected openings are necessary in fire separations because of the nature of a manufacturing process, such as a continuous flow of material from storey to storey, closures for such openings may be omitted provided precautions such as described in

Appendix C of NFPA 80, "Fire Doors and Windows," Appendix A of NFPA 101, "Code for Safety to Life From Fire in Buildings and Structures" and Section 4-4.8.2.3. of NFPA 13, "Installation of Sprinkler Systems," are taken to offset the hazard of the unprotected openings.

(7) Except as provided in Sentence (8), openings for stairways, escalators and inclined moving walkways need not conform to the requirements in Articles 3.2.8.2. to 3.2.8.10. provided

- (a) such opening for each stairway, escalator or walkway does not exceed 10 m²,
- (b) the openings are protected in conformance with the Sprinkler-Vent Method, the Spray Nozzle Method, Rolling Shutter Method or Partial Enclosure Method as described in Subsection 6-1.2 of NFPA 101, "Code for Safety to Life from Fire in Buildings and Structures," or to the method described in Section 4-4.8.2.3. of NFPA 13, "Installation of Sprinkler Systems,"
- (c) the building is sprinklered, and
- (d) the building is classified as Group A, Division 1 or 2, Group D or Group E major occupancy.

(8) An interconnected floor space need not conform to the requirements of Articles 3.2.8.2. to 3.2.8.10. provided

- (a) the interconnected floor space consists of the first storey, and the storey next above or below it, but not both,
- (b) the interconnected floor space is sprinklered, and
- (c) the interconnected floor space contains a Group A, Division 1 or 2, Group D, Group E, or Group F, Division 3 major occupancy.

Configuration

3.2.8.2.(1) In buildings constructed in conformance with Articles 3.2.8.3. to 3.2.8.10., the unprotected openings through floor assemblies in an interconnected floor space shall be of sufficient size and shall be positioned relative to each other so as to be capable of containing, within the full height of the interconnected floor space, a cylinder conforming to Sentence (2).

(2) The cylinder referred to in Sentence (1) shall have a cross-section that, where taken at a right angle to the longitudinal axis of such cylinder, is

- (a) a circle at least 9 m in diameter, or
- (b) an ellipse at least 7 m wide along the minor axis and at least 65m² in area.

Exits

3.2.8.3.(1) A building that is more than 18 m in height, measured between grade and the floor level of the top storey, and that contains an interconnected floor space, shall be designed to limit the passage of smoke from a fire into exit stairshafts opening into an interconnected floor space so that during a 2 h period after the start of fire, such stairshafts will not contain more than 1 per cent by volume of contaminated air from the fire floor, assuming an outdoor temperature equal to the January design temperature on a 2 1/2 percent basis.

(2) Where a building containing an interconnected floor space is more than 75 m in height, measured between grade and the floor level of the top storey, the exit stairshaft protection required in Sentence (1) shall be accomplished by the provision, between each floor area and each exit stairshaft, of a vestibule provided with a mechanical air supply or with a vent opening to the outdoors.

(3) Where a vestibule protecting an exit stairshaft is incorporated into the design of the building to meet the requirements of Sentences (1) or (2), such vestibule shall

- (a) be designed so that each doorway for a door opening into the vestibule is located at least 1.8 m from a door or doors opening outward from the vestibule,
- (b) be separated from the remainder of the floor area by a fire separation having a fire-resistance rating at least equal to that required for the exit which it serves except that the fire-resistance rating of a fire separation between the vestibule and a public corridor need not exceed 3/4 h, and
- (c) not have a door or doors opening into more than one exit stairshaft.

(4) Except where exits serving the floor area are at ground level, the increased travel distance to exits

permitted by Clause 3.4.2.4.(1)(b) shall not apply to a floor area within an interconnected floor space.

(5) Where a portion of a floor area is not within an interconnected floor space, required access to exit from such portion of a floor area shall not lead through an interconnected floor space.

(6) Except as provided in Sentences (7) and (8), portions of an interconnected floor space that have floor levels more than 18 m above grade shall be served by exits that provide at least 0.3 m² of area of treads, landings and floor surface for each occupant of such portions of an interconnected floor space.

(7) The requirements of Sentence (6) need not be applied where a floor area that is a portion of an interconnected floor space and that has a floor level more than 18 m above grade is separated from the remainder of the interconnected floor space by a fire separation having a fire-resistance rating of at least 1 h, except that no fire-resistance rating is required for such fire separation where all of the major occupancies contained within the interconnected floor space may be classified as light hazard occupancies in conformance with Appendix A of NFPA 13 "Installation of Sprinkler Systems".

(8) The requirements of Sentence (6) need not be applied where the exit stairs that serve interconnected floor spaces are designed so that the required units of exit width are cumulative.

Elevators

3.2.8.4.(1) Except as provided in Sentence (2), where an elevator shaft opens into an interconnected floor space and into storeys that are above such space and that have floor levels more than 18 m above grade, either the elevator doors opening into the interconnected floor space or the elevator doors opening into the storeys above the interconnected floor space shall be protected by vestibules that

(a) are designed to restrict the passage of contaminated air to the limit described in Sentence 3.2.8.3.(1), and

(b) conform to the requirements of Sentence 3.2.8.2.(3).

(2) Where elevator doors opening into an interconnected floor space are protected by vestibules in conformance with Sentence (1), the elevator doors opening into the lowest storey of the

interconnected floor space need not be protected by such vestibules.

Group B
sleeping
rooms

3.2.8.5.(1) Openings provided for access between an interconnected floor space and a building or a portion of a building containing Group B major occupancy sleeping rooms shall be provided with vestibules that are provided with a mechanical air supply and that are designed

(a) to restrict the passage of smoke from the interconnected floor space into the area containing sleeping rooms in accordance with the limits described in Sentence 3.2.8.3.(1), and

(b) in conformance with Clause 3.2.8.3.(3)(a).

Sprinklers

3.2.8.6.(1) In a building containing an interconnected floor space, storeys that are wholly or partially within an interconnected floor space and all storeys below an interconnected floor space shall be sprinklered.

(2) In a building containing an interconnected floor space

(a) waterflow alarm signals from sprinkler systems shall be transmitted to the fire department in conformance with Sentence 3.2.4.7.(3), and

(b) sprinkler systems shall be electrically supervised as required in Sentence 3.2.4.11.(5).

Fire alarm
and
detection
system

* 3.2.8.7.(1) A building containing an interconnected floor space shall be provided with

(a) a fire alarm system and electrically supervised annunciator conforming to Subsection 3.2.4.,

(b) a system of smoke detectors located

(i) on the ceiling of each storey in the vicinity of the openings through floor assemblies described in Article 3.2.8.2., except within dwelling units, heat detectors may be installed instead of smoke detectors, and

(ii) as required for the activation of the smoke control system described in

Sentences (5), (6) and (7) of Article 3.2.8.8., and

- (c) facilities for transmitting a signal to the fire department in conformance with Sentence 3.2.4.7.(3).

Smoke control

3.2.8.8.(1) A smoke control system conforming to Sentences (2) to (8) shall be designed to control the movement of smoke within a building containing an interconnected floor space.

(2) The design of the smoke control system shall assume an outdoor temperature equal to the January design temperature on a 2 1/2 per cent basis.

(3) Upon activation of the sprinkler system or automatic detection of smoke by at least two smoke detectors in a single zone within an interconnected floor space, the system shall

- (a) stop air moving fans which provide for the normal exhausting or re-circulating of air in an interconnected floor space,
- (b) activate exit stairshaft protection required in Article 3.2.8.3.,
- (c) activate elevator protection required in Article 3.2.8.4., and
- (d) activate the vestibule air supply required in Sentence 3.2.8.5.(1).

(4) A building containing an interconnected floor space may be designed so that, in the event of a fire arising in a floor area or part of a floor area within the interconnected floor space, automatic detection of such fire will activate air handling equipment that

- (a) extracts air directly from such floor area or part of a floor area at the rate of at least 6 air changes per hour, and
- (b) supplies air in sufficient quantities and at appropriate locations to prevent smoke from passing out of such floor area into other portions of the interconnected floor space.

(5) For purposes of Sentences (6) and (7), the volume of an interconnected floor space need not include the aggregate volume of those floor areas or portions of floor areas designed to have zoned air extraction in accordance with Sentence (4).

(6) A mechanical exhaust shall be provided to remove air at the top of an interconnected floor space at the rate of at least 6 air changes per hour, except that where the volume of the interconnected floor space exceeds 17 000 m³, only 4 air changes per hour need be provided.

(7) Except where zoned mechanical exhaust described in Sentence (4) has been activated, upon automatic detection of smoke within the volume of the interconnected floor space, the mechanical exhaust described in Sentence (6) shall be automatically activated and supply air shall be provided in sufficient quantity and at appropriate locations to allow a consistent rate of removal of smoke throughout the volume of the interconnected floor space.

(8) Overriding manual controls for the smoke control system shall be provided for fire department use at an acceptable location in the vicinity of the fire alarm annunciator.

Emergency
power supply

3.2.8.9. In a building that is more than 18 m in height, measured between grade and the floor level of the top storey, an emergency power supply capable of operating under a full load for at least 2 h shall be provided by an emergency generator or by a separate service not supplied by the same substation as the primary source for fans required for smoke control purposes in Articles 3.2.8.3., 3.2.8.4., 3.2.8.5., and 3.2.8.8.

Testing

3.2.8.10. The systems for smoke control and venting described in Articles 3.2.8.3., 3.2.8.4., 3.2.8.5. and 3.2.8.8. shall be tested to ensure satisfactory operation.

SUBSECTION 3.2.9. CHANGE OF MAJOR OCCUPANCY

3.2.9.1.(1) Except as permitted in Sentence (2), where a major occupancy is changed to one which is a greater hazard and construction is proposed, the design shall comply with the fire safety and health requirements of this Part.

(2) The requirements of this Subsection may be used in lieu of those contained in Subsection 3.2.2. where an existing building or portion thereof is to be changed to a

(a) Group A, Division 1 or 2 Assembly Occupancy,

(b) Group B, Division 2 Institutional Occupancy,

(c) Group D, Business and Personal Services Occupancy, or

(d) Group E, Mercantile Occupancy.

3.2.9.2.(1) The occupancy classification of an existing building or portion thereof may be changed to a Group A, Division 1 occupancy, having an occupant load not exceeding 300 persons in the auditorium where

- (a) the building conforms to the requirements of Sentence 3.2.2.9.(2),
- (b) the occupancy does not occur above the 2nd storey,
- (c) a fire separation having a fire-resistance rating of at least $3/4$ h is provided between the Group A, Division 1 occupancy and other occupancies,
- (d) notwithstanding Subsection 3.2.4., a fire alarm and fire detector system is provided,
- (e) notwithstanding Sentence 3.4.2.1.(2), there is a minimum of two exits, and
- (f) the travel distance to an exit does not exceed one half of that required in Article 3.4.2.4.

(2) There may be other occupancies above or below the Group A, Division 1 occupancy.

3.2.9.3.(1) The occupancy classification of an existing building, or portion thereof, may be changed to a group A, Division 1 occupancy having an occupant load not exceeding 600 persons in the auditorium where

- (a) the building conforms to Sentence 3.2.2.10.(2),
- (b) the occupancy does not occur above the 2nd storey,
- (c) a fire-separation having a fire-resistance rating of at least $3/4$ h is provided between the Group A, Division 1 occupancy and other occupancies,
- (d) notwithstanding Subsection 3.2.4., a fire alarm and fire detector system is provided,

- (e) notwithstanding Sentence 3.4.2.1.(2) there is a minimum of two exits, and
- (f) the travel distance to an exit does not exceed one half of that required in Article 3.4.2.4.

(2) There may be other occupancies above or below the Group A, Division 1 occupancy.

3.2.9.4.(1) The occupancy classification of an existing building, or portion thereof, may be changed to a Group A, Division 2 occupancy where

- (a) the building conforms to the requirements of Sentence 3.2.2.14.(2),
- (b) the occupancy does not occur above the 3rd storey,
- (c) if located on the 3rd storey, the 3rd storey and all storeys below are sprinklered,
- (d) if located on the 1st or 2nd storey, the occupancy storey and all floors below are sprinklered where the building area is greater than
 - (i) 400 m² if the building faces 1 street,
 - (ii) 500 m² if the building faces 2 streets, or
 - (iii) 600 m² if the building faces 3 streets, and
- (e) notwithstanding Subsection 3.2.4., a fire alarm and fire detector system is provided.

3.2.9.5.(1) The occupancy classification of an existing building, or portion thereof, may be changed to a Group B, Division 2 ambulatory occupancy where

- (a) the building conforms to the requirements of Sentence 3.2.2.24.(2),
- (b) a building exceeding 2 storeys in building height is sprinklered and the ambulatory occupancy is not located above the 3rd storey,
- (c) a building not greater than 3 storeys in building height and 250 m² in building area, need not be sprinklered,

(d) a fire alarm system and heat detectors or smoke detectors are installed in all occupied rooms in addition to the requirements of Sentence 3.2.4.10.(1) where the building

(i) exceeds 2 storeys in building height,
or

(ii) exceeds 250 m² in building area, and

(e) where such occupancy is to be located in a building that does not satisfy the requirements of Subsection 3.2.3. for the amount of existing window openings facing a yard or space that does not have sufficient limiting distance, such existing openings are allowed provided

(i) they are protected with wired glass in steel frames conforming to Sentence 3.1.6.10.(2), or

(ii) the building is sprinklered.

3.2.9.6.(1) The occupancy classification of an existing building, or portion thereof, may be changed to a Group B, Division 2 non-ambulatory occupancy where

(a) the building conforms to the requirements of Sentence 3.2.2.24.(2),

(b) sprinklers are provided where

(i) the building is more than 2 storeys in building height,

(ii) the building is more than 1 storey in building height and more than 250 m² in building area,

(iii) the building is more than 500 m² in building area, or

(iv) the services of a municipal fire department with a potential response of 5 minutes or less are not available,

(c) doors to sleeping rooms conform to Sentence 3.1.6.7.(1) or are 45 mm solid core wood doors,

(d) notwithstanding Subsection 3.1.11., the flame-spread rating of walls or ceilings does

not exceed 200 in other than corridors used by the public, corridors serving sleeping rooms and exits,

(e) the non-ambulatory occupancy does not occur above the 2nd storey, and

(f) where such occupancy is to be located in a building that does not satisfy the requirements of Subsection 3.2.3. for the amount of existing window openings facing a yard or space that does not have sufficient limiting distance, such existing openings are allowed provided

(i) they are protected with wired glass in steel frames conforming to Sentence 3.1.6.10.(2), or

(ii) the building is sprinklered.

3.2.9.7.(1) The occupancy classification of an existing building, or portion thereof, may be changed to a Group D occupancy where the building conforms to the requirements of Sentence 3.2.2.30.(2).

3.2.9.8.(1) The occupancy classification of an existing building, or portion thereof, may be changed to a Group E occupancy where

(a) the building conforms to Sentence 3.2.2.35.(2), and

(b) the Group E occupancy does not occur above the 3rd storey.

SECTION 3.3 SAFETY REQUIREMENTS WITHIN FLOOR AREAS

SUBSECTION 3.3.1. REQUIREMENTS APPLYING TO ALL FLOOR AREAS

Separation of suites

3.3.1.1.(1) In unsprinklered buildings, each suite in other than Group D occupancies shall be separated from adjoining suites by a fire separation having a fire-resistance rating of at least 1 h, except that a 3/4 h fire-resistance rating is permitted where the fire-resistance rating of the floor assembly is not required in Subsection 3.2.2. to exceed 3/4 h.

Hazardous
substances

(2) Where hazardous substances are used in connection with the activities of any occupancy other than as provided in Subsection 3.3.7. for a Group F, Division 1 occupancy, the storage, handling and use of such substances shall be in conformance with the provisions of the Ontario Fire Code made under the Fire Marshals Act, or in the absence of requirements pertinent to specific substances in the Ontario Fire Code, with the provisions of the National Fire Code of Canada 1985.

Kitchens

(3) In kitchens containing commercial cooking equipment used in processes producing grease-laden vapours, the equipment shall be designed and installed in conformance with Part 6.

Access to exits

3.3.1.2.(1) An access to exit shall be provided from every roof which is intended for occupancy, and from every podium, terrace, platform or contained open space.

(2) Access to exits within floor areas shall conform to Subsections 3.3.2. to 3.3.7. in addition to the requirements of this Subsection.

3.3.1.3.(1) Except as permitted in Sentences 3.3.4.3.(5) and (6), each suite in a floor area that contains more than 1 suite shall have an exterior exit doorway or a doorway into a public corridor or to an exterior passageway.

(2) Except as permitted in this Section and in Sentence 3.4.2.1.(2), at the point where a doorway in Sentence (1) opens to a public corridor or exterior passageway, it shall be possible to go in opposite directions to each of 2 separate exits.

Public corridors

(3) Except as otherwise required in this Part, public corridors shall be separated from the remainder of the building by a fire separation having a fire-resistance rating at least equal to 1 h, except that

- (a) the fire-resistance rating need not exceed $\frac{3}{4}$ h when the fire-resistance rating of the floor assembly is not required to exceed $\frac{3}{4}$ h,
- (b) no fire-resistance rating is required when the floor area is sprinklered and the corridor does not serve an institutional occupancy or a residential occupancy, and
- (c) no fire separation is required where the corridor exceeds 5 m in unobstructed

width, the floor area is sprinklered and the corridor does not serve an institutional occupancy or a residential occupancy.

(4) The sprinkler system in Clauses (3)(b) and (c) shall be electrically supervised in conformance with Sentence 3.2.4.11.(5) and, upon operation, cause a signal to be transmitted to the fire department in conformance with Sentence 3.2.4.7.(3) when the corridor serves a Group E or Group F, Division 1 or 2 occupancy.

Doorways
required

3.3.1.4.(1) Every room and every suite shall have 2 egress doorways placed in such a manner that one doorway could provide egress from the room or suite as required in Article 3.3.1.3. if the other doorway becomes inaccessible to the occupants due to a fire which might originate in the room or suite

(a) where the occupancy is classified as Group F, Division 1,

(b) which is intended for an occupant load of more than 60 persons, or

Table 3.3.1.A.
Forming Part of Sentence 3.3.1.4.(1)

<u>Occupancy of Room or Suite</u>	Maximum Area of Room or <u>Suite</u> , m ²	Maximum Distance to Egress Door, m
Group A	150	15
Group B, Division 1	75	10
Group B, Division 2 sleeping rooms	75	10
Group B, Division 2 other than sleeping rooms	150	25
Group C <u>dwelling units</u>	Unlimited	25
Group C other than <u>dwelling units</u>	150	25
Group D	200	25
Group E	200	25
Group F, Division 2	200	25
Group F, Division 3	200	25
Column 1	2	3

(c) where the area of a room or suite or the distance measured from any point within a room or suite to the nearest door opening

onto a public corridor, a corridor used by the public or a corridor serving classrooms or patients' bedrooms or opening directly to an exit or an exterior door at or near ground level or a doorway leading to an exterior passageway open to the outdoors exceeds the values shown in Table 3.3.1.A.

Travel
distance

(2) Where more than 1 egress door is required from a room or suite in Sentence (1), the travel distance within the room or suite to the nearest egress door shall not exceed the maximum travel distances described in Article 3.4.2.4. for exits.

Means of egress
from other spaces

(3) Where a roof is used or intended for an occupant load of more than 60 persons, at least 2 separate means of egress shall be provided from the roof to stairs, designed in conformance with the requirements for exit stairs, located so that the distance between such stairs conforms to the requirements in Article 3.4.2.2. for exits.

(4) Where a podium, terrace, platform or contained open space is provided, egress requirements shall conform to the appropriate requirements for rooms and suites in Sentence (1).

(5) Except for a mezzanine within a dwelling unit, every mezzanine that is not required to terminate at a vertical fire separation in Article 3.2.8.1. shall have 2 egress facilities providing egress from the mezzanine placed in such a manner that one facility could provide egress from the mezzanine if the other facility becomes inaccessible to the occupants of the mezzanine due to a fire which might originate in the room or suite in which the mezzanine is located where

- (a) the occupancy of the mezzanine, room or suite is classified as Group F, Division 1,
- (b) the mezzanine is intended for an occupant load of more than 60 persons,
- (c) the area of the mezzanine exceeds the area limits for rooms or suites in Table 3.3.1.A., or
- (d) the distance limits in Table 3.3.1.A. are exceeded when measured from any point on the mezzanine to
 - (i) the egress door from the room or suite in which the mezzanine is located where that room or suite has a single egress door, and

- (ii) an egress facility leading from the mezzanine where the room or suite in which the mezzanine is located has 2 egress doors provided in conformance with this Subsection.

(6) Except for a mezzanine which is not considered as a storey in calculating building height in Sentence 3.2.1.1.(4), where the space below a mezzanine is enclosed, an egress facility from the mezzanine shall not lead into the enclosed space.

3.3.1.5.(1) RESERVED.

Headroom

3.3.1.6. The minimum headroom clearance in every access to exit shall conform to the requirements in Article 3.4.3.5. for exits.

Corridors

3.3.1.7.(1) The minimum width of every public corridor shall be 1 100 mm.

(2) Except as provided in Sentence 3.3.3.3.(2), the minimum unobstructed width of every corridor used by the public and every corridor serving classrooms or patients' bedrooms shall be 1 100 mm.

(3) Except as permitted in Sentence (4), obstructions located within 1 980 mm of the floor shall not project more than 100 mm horizontally into exit passageways, public corridors, corridors used by the public or corridors serving classrooms or patients' bedrooms in a manner that would create a hazard for visually impaired persons travelling adjacent to walls.

(4) The horizontal projection of an obstruction in Sentence (3) is permitted to exceed 100 mm where it extends to less than 680 mm above the floor.

(5) Where a public corridor, corridor used by the public or a corridor serving classrooms or patients' bedrooms contains an occupancy, such occupancy shall not reduce the unobstructed width of the corridor to less than its required width.

(6) Facilities for the illumination of corridors and other principal access routes to exits shall conform to the appropriate requirements in Subsection 3.2.7.

Door swing

3.3.1.8.(1) Except as provided in Sentences (3), (4) and (5), every door that opens into a corridor or

other facility providing access to exit from a suite or room not located within a suite shall swing on a vertical axis, and where a room or suite is used or intended for an occupant load of more than 60 persons or for a Group F, Division 1 occupancy, the door shall swing in the direction of exit travel.

(2) Except as provided in Sentence (6), every door that divides a corridor where such corridor is required to be separated from the remainder of the floor area by a fire separation shall swing on a vertical axis in the direction of exit travel.

(3) Except as permitted in Sentence (4), a sliding door provided in the locations described in Sentence (1) shall

(a) be designed and installed to swing on the vertical axis in the direction of exit travel when pressure is applied, and

(b) be identified as a swinging door by means of a label or decal affixed to it.

(4) In Group B, Division 1 occupancies, sliding doors used in an access to exit where persons are under legal restraint need not conform to Sentences (1) and (3).

(5) Movable partitions which are open during normal working hours and used to separate a public corridor from an adjacent Group D or E occupancy need not conform to Sentences (1) and (3).

(6) Where the corridor in Sentence (2) is divided by paired doors which provide access to exit in opposite directions,

(a) the doors shall swing on a vertical axis,

(b) the doors shall swing in opposite directions, and

(c) the right hand door shall swing in the direction of exit travel.

Doors

3.3.1.9.(1) Every door that opens into or is located within a public corridor or other facility that provides access to exit from a suite shall

(a) be at least 800 mm in width where there is only 1 door leaf,

- (b) have no single leaf in any multiple leaf door less than 600 mm or more than 1 220 mm in width,
- (c) not open onto a step, and
- (d) be readily openable in travelling to an exit without requiring keys, special devices or specialized knowledge of the door opening mechanism, except that this requirement does not apply to doors of rooms where persons are under legal restraint.

Ramps,
stairways and
passageways

3.3.1.10.(1) Except as provided in Sentence (2) and Subsection 3.3.2., ramps, stairways and passageways used by the public as access to exit shall conform with the requirements in Subsection 3.4.7.

Exterior
passageways

(2) Exterior passageways leading to a required exit shall conform to the requirements in Section 3.4 for exterior exit passageways.

Curved or spiral
stairs

(3) In a stairway not required as an exit, a curved or spiral stair having treads with a minimum run of 150 mm, a minimum average run of 200 mm and having risers in conformance with Sentence 3.4.7.8.(2) is permitted.

Capacity of
access to exits

3.3.1.11.(1) The capacity of any part of a public access to exit shall be based on the occupant load of the portion of the floor area served and be computed on the basis of the following maximum number of persons per unit of width as determined by the method for computing units of exit width in Article 3.4.3.2.:

- (a) except as provided in Clause (c), doorways, corridors and passageways shall be assumed to accommodate not more than 90 persons per unit of exit width (550 mm),
- (b) except as provided in Clause (c), stairways and ramps, shall be assumed to accommodate not more than 60 persons per unit of exit width (550 mm), and
- (c) access to exit from a floor area intended for the treatment or care of infirm persons shall be assumed to accommodate not more than 30 persons per unit of exit width (550 mm).

Guards

3.3.1.12.(1) A guard at least 1 070 mm in height shall be provided

- (a) around each roof to which access is provided for other than maintenance,
- (b) at openings into smoke shafts described in Subsection 3.2.6. that are less than 1 070 mm above the floor, and
- (c) at each raised floor, mezzanine, balcony, gallery and other locations where the difference in floor elevations is greater than 600 mm.

(2) The height of guards on stairs used by the public but not forming part of a required exit shall be not less than 920 mm measured vertically to the top of the guard from a line drawn through the outside edges of the stair nosings and 1 070 mm around landings.

(3) Except as provided in Sentence 3.3.2.9.(4), the size of any opening through a required guard serving a room, stairway or space to which the public is admitted or serving an exterior balcony shall be such as to prevent the passage of a spherical object having a diameter of 100 mm in residential occupancies, daycare centres, nurseries or other similar type occupancies where children may be present and 200 mm in other occupancies, unless it can be shown that the location and size of openings that exceed these limits do not present a hazardous condition.

Transparent
doorways and
panels

3.3.1.13.(1) Except as provided in Sentence (3), every glass or transparent door accessible to the public shall be designed and constructed so that the existence and position of such door is readily apparent by attaching thereto non-transparent hardware, bars or other permanent fixtures, and when constructed of glass shall be constructed of safety glass of the laminated or tempered type conforming to CAN2-12.1, "Glass, Safety, Tempered or Laminated" or wired glass conforming to CAN2-12.11, "Glass, Wired, Safety."

(2) Except as provided in Sentence (3), transparent panels used in an access to exit which because of their physical configuration or design could be mistaken as a means of egress shall be made inaccessible by barriers or railings.

(3) Sliding glass partitions which separate a public corridor or mall from an adjacent occupancy and which are open during normal working hours need not conform to Sentences (1) and (2), except that such partitions

shall be suitably marked to indicate their existence and position.

(4) Glass in doors and side lights that could be mistaken for doors within or at the entrances to dwelling units and in public areas shall conform to the requirements in Part 9.

(5) Windows in public areas that extend to less than 1 m from the floor and are located above the second storey in buildings of residential occupancy shall be protected by barriers or railings to at least 1 m above the floor, or the windows shall be non-openable and designed to withstand the lateral design loads for balcony guards in Part 4.

Exhaust
ventilation
required

3.3.1.14.(1) Every building or part of a building in which there may be or may develop, by reason of use or occupancy, dust, fumes, gases, vapour or other various impurities or contaminants that may create a fire or explosion hazard, shall be provided with an exhaust ventilation system designed in conformance with the appropriate requirements of Part 6.

(2) When substances or conditions that may create an explosion hazard are present as a result of the principal use of a building space, such space shall be provided with explosion relief devices, vents or other protective measures in conformance with Sentence 6.2.2.3.(3).

SUBSECTION 3.3.2. ASSEMBLY OCCUPANCY

Scope

3.3.2.1. This Subsection applies to floor areas or parts thereof used or intended for use as assembly occupancies.

Fire separations

3.3.2.2.(1) The seating area of a Group A, Division 1 occupancy shall be separated from adjacent occupancies by a fire separation having a fire-resistance rating of at least 1 h where the occupant load in the seating area exceeds 200 persons, except that a fire separation having a fire-resistance rating of 3/4 h may be used where the floor assembly is not required to have a fire-resistance rating greater than 3/4 h.

(2) Where usable space exists under tiers of seats in arena-type buildings, a 3/4 h fire-separation shall be provided between such space and the seats or the space shall be sprinklered.

(3) An assembly occupancy shall be separated from a garage by a fire separation conforming to Article 3.3.7.6.

Fixed seats

3.3.2.3.(1) Except for bench-type seats as provided in Articles 3.3.2.8., 3.3.2.10. and 3.3.2.11., in places of assembly with fixed seats, such seats shall be

- (a) attached or secured to the floor, platform or platform riser,
- (b) provided with arms and back, and
- (c) arranged in rows having an unobstructed passage of at least 400 mm measured horizontally between plumb lines from the backs of the seats in one row and the edges of the furthest forward projection of the seats in the next row in the unoccupied position.

(2) Except as provided in Sentence (3), aisles on the main floor and in balconies shall be located so that there are not more than 7 seats between any seat and the nearest aisle.

(3) The requirements of Sentence (2) do not apply where

- (a) egress doorways are provided to serve both ends of rows of seats,
- (b) each doorway in Clause (a) serves not more than 3 rows of seats, and
- (c) each row contains not more than 100 seats.

(4) Seating arrangements that do not conform to the requirements of Sentences (2) or (3) may be permitted provided the standard of safety is not reduced and the time required for egress is not increased.

Aisles

3.3.2.4.(1) Except as required in Articles 3.3.2.8., 3.3.2.10. and 3.3.2.11., aisles leading to exits shall be provided in places of assembly which contain fixed seats in conformance with Sentences (2) to (9).

(2) The minimum clear width of aisles shall be not less than 1 100 mm, except that the width may be reduced to not less than

- (a) 750 mm when serving 60 seats or fewer, and
- (b) 900 mm when serving seats on 1 side only.

(3) Except in the case of bleacher seats, the minimum clear width of aisles referred to in Sentence (2) shall be measured at the point farthest from an exit, cross aisle or foyer and shall be increased in width 25 mm/m in length toward the exit, cross aisle or foyer.

(4) Aisles shall terminate in a cross aisle, foyer or exit, and the width of such cross aisle, foyer or exit shall be at least the required width of the widest aisle plus 50 per cent of the total required width of the remaining aisles that it serves.

(5) Dead-end aisles shall be not more than 6 m in length.

(6) The length of travel to an exit door by any aisle shall not be longer than 45 m.

(7) Side aisles shall be at least 1 100 mm wide when seating is provided in conformance with Sentence 3.3.2.3.(3).

(8) The floor of every aisle shall have a gradient of not more than 1 in 8.

(9) Steps shall not be placed in any aisle unless the gradient exceeds 1 in 8 and

(a) the passageway between rows of seats is level at right angles to the line of travel,

(b) the riser height is at least 110 mm,

(c) the riser height does not exceed 200 mm,

(d) where variations in riser height occur

(i) the heights of adjacent risers do not vary more than 6 mm, and

(ii) treads or any part of a platform extend at least 430 mm,

(e) treads have a run of at least 230 mm exclusive of nosing and a tread width of at least 250 mm,

(f) aisle platforms that extend at least 430 mm in the direction of exit travel slope not more than 1 in 50,

(g) an unobstructed platform at least 800 mm square is provided adjacent to an aisle where

a step is used at the entry to a row of seats,

- (h) the location of every riser is made apparent from both directions of travel by strategically placed lighting or contrasting marking stripes,
- (i) the steps extend to the adjacent rows of seats in a manner that will not create a hazard from tripping, and
- (j) the finish of treads and platforms conforms to Sentence 3.4.7.2.(1).

(10) In every place of assembly intended for the viewing of motion pictures or the performing arts, the average level of illumination at floor level in the aisles shall not be less than 2 lx during the viewing.

Corridors

3.3.2.5.(1) Corridors used by the public in assembly occupancies as access to exits shall

- (a) be separated from the remainder of the building by a fire separation having a fire-resistance rating of not less than 1 h, except that
 - (i) the fire-resistance rating need not be greater than $3/4$ h where the floor assembly is permitted to have a $3/4$ h fire-resistance rating,
 - (ii) no fire-resistance rating is required if the floor area is sprinklered, and
 - (iii) no fire separation is required where the distance from any point in the floor area to an exit measured along the path of exit travel does not exceed the travel distances in Article 3.4.2.4., and
- (b) be equipped with emergency lighting conforming to the requirements in Subsection 3.2.7.

Doors

3.3.2.6. Every door equipped with a latching mechanism in a principal access to exit from a room or suite of Group A occupancy containing an occupant load of more than 100 persons shall be equipped with a device that will release the latch and allow the door to swing wide open when a force of 90 N is

applied to the device in the direction of travel to the exit.

Dead-end
corridors

3.3.2.7. A dead-end corridor is permitted in an assembly occupancy where there is a second and separate egress doorway from each room or suite not leading into a dead-end corridor.

Fixed
bench-type seats
without arms

3.3.2.8.(1) Where fixed bench-type seats without arms are provided, the seat width per person shall be assumed to be 450 mm.

(2) The centre-to-centre spacing between rows of bench-type seats shall be at least 760 mm where back rests are provided, and at least 550 mm where back rests are not provided.

(3) There shall be a space of at least 300 mm between the back of each seat and the front of the seat immediately behind it.

(4) Except as provided in Sentence 3.3.2.3.(2), aisles shall be located so that there are not more than 7 seats with backs or 20 seats without backs between every seat and the nearest aisle.

(5) The width of every aisle serving bench-type seats shall conform to Article 3.3.2.4.

(6) Steps shall not be placed in any aisle unless the gradient exceeds 1 in 8 and such steps need not have handrails when the adjacent seating is on the same level.

Height of
guards

3.3.2.9.(1) Except as required in Sentences (2) to (4) for bleacher seats, guards shall be installed in outdoor and indoor places of assembly with fixed seats so that

(a) at the fascia of every box, balcony or gallery where the seats extend to the edge, the height of guards is at least 760 mm in front of the seats and at least 920 mm when located at the end of aisles or at the foot of steps,

(b) the height of guards along every cross aisle other than those adjacent to the fascia of every box, balcony or gallery is at least 660 mm, except that such guards need not be provided where the backs of the seats along the front side of the aisle are at least 600 mm above the floor of the aisle, and

(c) where the seating is arranged in successive tiers and the height of rise between platforms exceeds 450 mm, the height of guards is at least 660 mm along the entire row of seats at the edge of the platform.

(2) The backs and ends of bleacher seats more than 1.2 m above the ground or floor that are not adjacent to a wall shall be protected with a guard

(a) at least 1 070 mm in height above an adjacent aisle surface or foot rest, and

(b) at least 920 mm in height above the centre of an adjacent seat board.

(3) If the front of a bleacher is more than 600 mm above the ground or floor, it shall be protected with a guard at least 840 mm in height above the front foot rest.

(4) The size of any opening in a guard required in Sentences (2) and (3) shall be such as to prevent the passage of a spherical object more than 300 mm in size.

Outdoor places
of assembly

3.3.2.10.(1) Any Group A, Division 4 occupancy and each tier or balcony thereof that has a capacity of more than

(a) 1,000 persons shall have at least 3 separate exits, or

(b) 4,000 persons shall have at least 4 separate exits.

(2) In every Group A, Division 4 occupancy, every seat shall be located so that the travel distance does not exceed 45 m measured along the path of travel from the seat to

(a) the ground,

(b) an exit,

(c) an opening to a passageway leading from the seating area, or

(d) an opening through the seating deck structure such as a portal or vomitory.

(3) Exits from outdoor stadia or grandstands shall be located not more than 25 m apart.

(4) The capacity of means of egress for Group A, Division 4 occupancies shall be based on

(a) 1 unit of exit width for each 300 persons for

(i) aisles,

(ii) stairs other than exit stairs, and

(iii) ramps and level passageways in vomitories and in exits, and

(b) 1 unit of exit width for each 225 persons for exit stairs.

(5) Aisles in Group A, Division 4 occupancies

(a) shall be located so that there are not more than 20 seats between any seat and the nearest aisle,

(b) shall be at least 1 200 mm in width, except that an aisle serving fewer than 60 persons may be 750 mm in width, and

(c) shall not have steps unless the gradient of the aisle exceeds 1 in 8.

(6) Except as provided in Sentences 3.3.2.11.(1) and (2), where steps are provided in aisles, such steps shall

(a) extend the full width of the aisles,

(b) have risers not exceeding 230 mm in height, and

(c) have treads with a run of at least 250 mm.

Bleachers

3.3.2.11.(1) Where steps are provided in aisles of bleachers of the telescopic type, such steps shall

(a) have risers not exceeding 250 mm, and

(b) have treads with a run of at least 280 mm.

(2) When the vertical distance between seating platforms in bleachers exceeds 280 mm, an intermediate step shall be provided the full width of the aisle and proportioned to provide 2 equal risers between platforms and, when the vertical distance between seating platforms exceeds 450 mm, 2 intermediate steps shall be provided the full width of the aisle so that there are 3 equal risers between platforms.

(3) Where the passageway between rows of seats is not a closed deck, footboards shall be provided so that

(a) the total width of the footboards shall be not less than $3/4$ of the centre-to-centre spacing between rows of seats, and

(b) the spacing between footboard members shall not exceed 25 mm.

Libraries

3.3.2.12.(1) Where a library book storage room that is not normally accessible to the public exceeds 250 m^2 in area, or where the book stacks in such storage room exceed 10 m in height or penetrate more than 1 storey,

(a) the book storage room shall be separated from the remainder of the building by a 2 h fire separation, or

(b) the book storage room shall be sprinklered.

(2) Open book shelves are permitted above and below a mezzanine floor in a library building provided the height of such book shelves is not more than 2.1 m or 75 per cent of the floor to ceiling height of the space above or below the mezzanine floor assembly.

Bowling alleys

3.3.2.13.(1) Any portion of a building in which 3 or more bowling lanes are located shall be separated from other occupancies by at least a 1 h fire separation.

(2) Subsidiary occupancies such as offices, cocktail lounges and lunch counters operated in connection with 3 or more bowling lanes shall be separated by at least a 1 h fire separation where the combined area of these subsidiary occupancies exceeds 150 m^2 .

Stages for theatrical performances

3.3.2.14.(1) Structural members supporting the floor of any stage for theatrical performances shall be of noncombustible construction unless the building is permitted to be of combustible construction.

(2) Stages for theatrical performances and ancillary spaces, such as workshops, dressing rooms and storage areas, shall be sprinklered.

(3) A 1 h fire separation shall be provided between every stage for theatrical performances and ancillary spaces, such as workshops, dressing rooms and storage areas.

(4) Every stage for theatrical performances and ancillary spaces, such as workshops, dressing rooms and storage areas, shall be separated from the seating space by a fire separation having a fire-resistance rating of at least 1 h, except for a proscenium opening which shall be protected with

- (a) an unframed fire curtain when the opening does not exceed 20 m in width, or
- (b) a semi-rigid fire curtain when the opening is more than 20 m in width.

(5) Every fire curtain as required by Sentence (4) shall be designed to close

- (a) automatically by heat-actuated devices,
- (b) automatically upon the actuation of the sprinkler system,
- (c) automatically upon actuation of the fire alarm system, and
- (d) manually by remote control devices located at the curtain control panel and at each side of the stage.

(6) At least 2 vents for the purpose of venting fire and smoke to the outside of a building shall be provided above every stage designed for theatrical performances and shall

- (a) have an aggregate area of at least 1/8 of the area of the stage behind the proscenium opening, and
- (b) be arranged to open automatically by means of
 - (i) heat-actuated devices, or
 - (ii) actuation of the sprinkler system.

SUBSECTION 3.3.3. INSTITUTIONAL OCCUPANCY

3.3.3.1. This Subsection applies to floor areas or parts thereof used or intended for use as institutional occupancies.

3.3.3.2. The fire separation required between an institutional occupancy and a repair garage shall have no openings.

Corridors

3.3.3.3.(1) Corridors used by the public or serving patients' bedrooms shall

(a) be equipped with emergency lighting conforming to Subsection 3.2.7., and

(b) have no dead-end portions unless the area served by the dead-end has a second and separate means of egress.

(2) Every corridor in which it may be necessary to move patients in beds shall be at least 2 400 mm wide.

(3) Paired doors in corridors described in Sentence (2) shall

(a) swing in opposite directions, the right hand door swinging in the direction of travel, and

(b) be at least 1 100 mm wide and 2 100 mm high.

Separation of
rooms

3.3.3.4. Except as permitted in Sentence 3.3.3.5.(2) and Article 3.3.3.6., sleeping rooms and patients' bedrooms shall be separated from adjacent rooms by a fire separation having a fire-resistance rating of not less than 1 h, except that the fire-resistance rating need not be greater than $3/4$ h where the floor assembly is not required to exceed $3/4$ h.

Unsprinklered
hospitals and
nursing homes

3.3.3.5.(1) Except as provided in Article 3.3.3.6., floor areas containing patients' bedrooms in hospitals and nursing homes shall conform to Sentences (2) to (11).

(2) Where 2 or more intercommunicating rooms such as patients' bedrooms and adjacent bathrooms are provided as patient accommodation, the fire separation required in Article 3.3.3.4. does not apply to the wall between the intercommunicating rooms provided the total number of patients served by the intercommunicating rooms does not exceed 5.

(3) Corridors used by the public or serving patients' bedrooms in hospitals and nursing homes shall be separated from the adjacent rooms or spaces by a fire separation having a fire-resistance rating of not less than 1 h, except that the fire-resistance rating need not be greater than $3/4$ h where the floor assembly is not required to exceed $3/4$ h.

(4) Corridors in Sentence (3) shall contain no occupancy other than for nursing stations and related spaces not normally used by patients.

(5) The requirement for labels in Sentence 3.1.6.4.(4) and latches in Article 3.1.6.9. may be waived for doors between patients' bedrooms and

corridors provided the doors are equipped with roller latches.

(6) Except as provided in Sentence (7), every floor area used or intended to be used for patients in bed or infirm persons in hospitals and nursing homes shall be divided into 2 or more zones separated by a fire separation in such a manner that the occupants in every zone have access to 2 exits either directly or through adjacent zones.

(7) The floor area on either side of a horizontal exit conforming to Article 3.4.7.10. may be considered as a zone in applying the requirements of this Article.

(8) Fire separations between zones in Sentence (6) shall have a fire-resistance rating of not less than 1 h, except that a $3/4$ h fire separation is permitted where the fire-resistance rating of the floor assembly is not required to exceed $3/4$ h.

(9) Doors acting as closures in fire separations between zones in Sentence (6) shall be weatherstripped or otherwise designed and installed to retard the passage of smoke.

(10) Every zone in Sentence (6) shall accommodate, in addition to its own occupants, the occupants of the largest adjacent zone based on a clear floor space of 2.5 m^2 per patient in the adjacent zone.

(11) The travel distance from any point within each zone in Sentence (6) to an adjacent zone shall not exceed 30 m.

Sprinklered
hospitals and
nursing homes

3.3.3.6.(1) Floor areas containing patients' bedrooms in hospitals and nursing homes need not conform to Articles 3.3.3.4. and 3.3.3.5. provided the building is sprinklered and the floor areas conform to Sentences (2) to (10).

(2) Except as provided in Sentence (3), floor areas containing patients' bedrooms in hospitals and nursing homes shall be divided into at least 2 fire compartments not exceeding $1\,000 \text{ m}^2$ in area.

(3) The floor area on either side of a horizontal exit conforming to Article 3.4.7.10. may be considered as a fire compartment in applying the requirements of this Article.

(4) Fire separations separating fire compartments in Sentence (2) shall have a 1 h fire-resistance rating, except that the fire-resistance rating need not be

greater than $3/4$ h where the floor assembly is not required to exceed $3/4$ h.

(5) Doors serving as closures in fire separations between fire compartments in Sentence (2) shall be weatherstripped or otherwise designed and installed to retard the passage of smoke.

(6) The travel distance from any point within each fire compartment in Sentence (2) to a door in Sentence (5) shall not exceed 45 m.

(7) Each fire compartment in Sentence (2) shall be capable of accommodating, in addition to its own occupants, the occupants of the largest adjacent fire compartment based on a clear floor space of 2.5 m^2 per patient in the adjacent fire compartment.

(8) Except as permitted in Sentence (9), walls between patients' bedrooms and adjacent rooms and between corridors serving patients' bedrooms and adjacent rooms within a fire compartment in Sentence (2) shall be constructed as fire separations.

(9) Doors in fire separations in Sentence (8) are permitted to be equipped with roller latches.

(10) Doors in fire separations in Sentence (8) shall not contain any grilles, louvres or other openings.

Visual signals
from smoke
detectors

3.3.3.7. In addition to the requirements for fire alarm and detection systems in Subsection 3.2.4., visual signals from smoke detectors in patients' bedrooms in hospitals and nursing homes shall be provided so that the staff serving those patients' bedrooms can easily identify the room from which the alarm originated.

Areas of
refuge

3.3.3.8.(1) Compartments containing rooms such as operating rooms, recovery rooms, delivery rooms and intensive care units, from which it is impracticable to move patients in an emergency, shall be

(a) separated from adjacent spaces by fire separations having a fire-resistance rating of at least 1 h, and

(b) provided with a mechanical air supply so that during a period of 2 h after the start of a fire in another space, such compartments will not contain more than 1 per cent by volume of contaminated air from the fire area.

Doorway width

3.3.3.9. The minimum clear width of doorways through which it is necessary to move patients in bed shall be 1 050 mm.

SUBSECTION 3.3.4. RESIDENTIAL OCCUPANCY

Scope

3.3.4.1. This Subsection applies to floor areas or parts thereof used or intended for use as residential occupancies.

Fire separations

3.3.4.2.(1) Suites of residential occupancies shall be separated from each other and the remainder of the building by a fire separation having a fire-resistance rating of at least 1 h, except that a 3/4 h fire-resistance rating is permitted where the fire-resistance rating of the floor assembly is not required to exceed 3/4 h.

(2) Floor assemblies within a dwelling unit need not be constructed as fire separations provided the distance between the lowest floor level and the uppermost floor level within the dwelling unit does not exceed 6 m and provided that the dwelling unit is separated from the remainder of the building by a fire separation having a fire-resistance rating of at least

(a) 3/4 h where the building is sprinklered and is not more than 3 storeys in building height,

(b) 1 h where the building is sprinklered or is not more than 6 storeys in building height, and

(c) 2 h where the building is not sprinklered and is greater than 6 storeys in building height.

Storage rooms

(3) Storage rooms not contained within a suite, for the use of tenants in residential occupancies, shall be sprinklered and separated from the remainder of the building by a fire separation having a fire-resistance rating of at least 1 h, except that a 3/4 h fire-resistance rating is permitted where the fire-resistance rating of the floor assembly is not required to exceed 3/4 h.

Egress from dwelling units

3.3.4.3.(1) RESERVED.

(2) Except as provided in Sentences (3) and (4), every dwelling unit containing more than 1 storey shall have an exit door or an egress door opening directly into a public access to exit from the

uppermost storey and from the lowest storey of the dwelling unit so that the floor level of each such storey is served by an exit or egress door located not more than 1.5 m above or below the floor level.

(3) A single exit is permitted from a dwelling unit provided the exit is an exterior doorway not more than 1.5 m above adjacent ground level and

- (a) it is not necessary to travel up or down more than 1 storey to reach the exit door, or
- (b) the uppermost floor level opens to a balcony not more than 6 m above adjacent ground level.

(4) An egress door from either the uppermost storey or the lowest storey in a dwelling unit, as required in Sentence (2), need not be provided

- (a) where that storey is served by a stairway that

- (i) leads to a public access to exit,

- (ii) has no direct access to any other storey in the dwelling unit, and

- (iii) is separated from the other storeys in the dwelling unit by a fire separation having a fire-resistance rating of at least $3/4$ h, or

- (b) where a smoke alarm conforming to Article 3.2.4.15. is installed

- (i) on the uppermost storey of a dwelling unit having not more than 2 storeys above the first storey of the building, or

- ii) on each storey of the dwelling unit provided it is not necessary to travel either more than 18 m, or more than 1 storey up or down to reach the egress door.

(5) In buildings of residential occupancy not more than 3 storeys in building height, a doorway from a dwelling unit is permitted to open directly into an exit stairway provided such dwelling unit has a second and separate means of egress.

(6) A doorway from a dwelling unit may open onto an interior corridor served by a single exit, or an

exterior balcony served by a single exit stairway, or an exterior passageway served by a single exit stairway provided each dwelling unit has a second and separate means of egress.

Automatic locking prohibited

(7) Except for hotels and motels, a door opening onto a public corridor which provides access to exit from a suite shall be designed not to lock automatically.

Dead-end corridors

3.3.4.4.(1) Except for corridors served by a single exit as described in Sentence 3.3.4.3.(6), a dead-end public corridor is permitted only if it does not exceed 6 m in length, measured from the end of the corridor to a point where it is possible to go in opposite directions to each of 2 separate exits.

(2) Dead-end corridors in Sentence (1) shall serve not more than 4 suites and shall contain no door openings other than for suites, arranged so that it is not necessary to pass more than 2 doors in the dead-end corridor in travelling to the nearest exit.

3.3.4.5. Walls and floors separating suites of residential occupancy from the remainder of the building shall be designed and constructed to restrict sound transmission in conformance with Part 9.

Guards

3.3.4.6. Guards around balconies in buildings of residential occupancy shall be designed so that no member, attachment or opening located between 100 mm and 900 mm above the balcony will facilitate climbing.

3.3.4.7. Stairs, handrails and guards within dwelling units shall conform to the appropriate requirements in Section 9.8.

SUBSECTION 3.3.5. BUSINESS AND PERSONAL SERVICES OCCUPANCY

Scope

3.3.5.1. This Subsection applies to floor areas or parts thereof used or intended for use as business and personal services occupancies.

Dead-end corridors

3.3.5.2.(1) A dead-end public corridor is permitted in a business and personal services occupancy where

(a) the dead-end corridor

(i) serves an occupant load that does not exceed 30 persons,

(ii) does not exceed 9 m in the distance of travel from the most remote point of the dead-end portion to a point where it is possible to go in opposite directions to each of 2 separate exits, and

(iii) is provided with doors having self-closing devices, or

(b) there is a second and separate egress doorway from each room or suite not leading into a dead-end corridor.

SUBSECTION 3.3.6. MERCANTILE OCCUPANCY

Scope

3.3.6.1. This Subsection applies to floor areas or parts thereof used or intended for use as mercantile occupancies.

Exterior wall openings

3.3.6.2. Where any storey of a building classified as a Group E major occupancy is required to be separated from the storey above or below by a fire separation, openings in an exterior wall located vertically one above the other shall be separated by apron or spandrel walls at least 1 m in height or by a canopy at least 1 m wide at each floor level and such apron, spandrel or canopy shall have a fire-resistance rating equivalent to the construction required for the floor assembly and need not be greater than 1 h, except as required in Subsection 3.2.3.

Posts or turnstiles

3.3.6.3. In any mercantile occupancy no obstructions such as posts or turnstiles shall be placed so as to restrict the width of a normal means of egress from a floor area or part of a floor area to less than 750 mm unless an alternate means of egress is provided adjacent to and is plainly visible from the restricted egress.

Dead-end corridors

3.3.6.4.(1) Except as permitted in Sentence 3.4.2.4.(2), a dead-end corridor is permitted in a mercantile occupancy where

(a) the dead-end corridor

(i) serves an occupant load that does not exceed 30 persons,

(ii) does not exceed 9 m in the distance of travel from the most remote point of the dead-end portion to a point where it is possible to go in opposite directions to each of 2 separate exits, and

(iii) is provided with doors having self-closing devices, or

(b) there is a second and separate egress doorway from each room or suite not leading into a dead-end corridor.

SUBSECTION 3.3.7. INDUSTRIAL OCCUPANCY

Scope

3.3.7.1. This Subsection applies to floor areas or parts thereof used or intended for use as industrial occupancies.

Fire extinguishing equipment

3.3.7.2. In a Group F, Division 1 major occupancy, every floor area shall be equipped with an automatic fire extinguishing system that will provide protection against the nature of the risk in conformance with the provisions of the Ontario Fire Code made under the Fire Marshals Act, or in the absence of requirements pertinent to the specific risk in the Ontario Fire Code, with the provisions of the National Fire Code of Canada 1985.

Spaces below grade

3.3.7.3.(1) Basements shall not be used for the storage, manufacture or handling of volatile solids, liquids or gases that generate explosive air-vapour mixtures or for processes that involve explosive dusts.

(2) Entrances and exits to basements and rooms containing building services in a building involving the storage, manufacture or handling of volatile materials that generate explosive air-vapour mixtures or processes that produce explosive dusts shall be separate from the remainder of the building; such basements and rooms shall be separated from the remainder of the building with a vapour-tight separation.

Exterior wall openings

3.3.7.4. Where any storey of a building classified as a Group F, Division 1 or 2 major occupancy is required to be separated from the storey above or below by a fire separation, every opening in an exterior wall located vertically above another opening shall be separated by apron or spandrel walls at least 1 m in height or by a canopy at least 1 m wide at each floor level and such apron, spandrel or canopy shall have a fire-resistance rating equivalent to the construction required for the floor assembly and need not be greater than 1 h, except as required in Subsection 3.2.3.

Cutting and welding

3.3.7.5. Where a room in other than a Group F major occupancy is used for cutting and welding operations, it shall be separated from the remainder of the

building by a fire separation having a fire-resistance rating of at least 1 h, except that this requirement does not apply to a room that is protected by an automatic fire extinguishing system.

Garages

3.3.7.6.(1) Where access is provided from a storage garage to a stair tower or elevator serving occupancies above the level of the storage garage, such access shall be through a vestibule conforming to Sentence (14).

(2) Treads and landings in interior stairs that extend to the roof of a storage garage shall be designed to be free of accumulations of ice and snow.

(3) Mechanical storage garages of not more than 4 storeys in building height, where no persons other than parking attendants are permitted above the street floor level, need not have a fire separation between the exits and the remainder of the building.

(4) Every garage shall be provided with natural or mechanical ventilation in conformance with the requirements of Part 6 to prevent excessive accumulation of carbon monoxide, exhaust fumes or flammable and toxic vapours.

(5) The clear height of every storey in a storage garage shall be at least 2 m.

(6) A continuous curb at least 150 mm in height and a guard at least 1 070 mm in height shall be provided at every garage floor opening and around the perimeter of every floor where the exterior walls are omitted.

(7) A standpipe need not be installed in storage garages conforming to Article 3.2.2.51. provided such buildings are not more than 15 m in height.

(8) Only 2 exits located remote from each other need be provided in storage garages conforming to Article 3.2.2.51. provided persons other than parking attendants are not permitted above the street floor level.

(9) Except for open-air storeys, every storey of a storage garage or repair garage located below grade shall be sprinklered.

Repair garages

(10) A repair garage shall be separated from other occupancies by at least a 2 h fire separation.

Storage garages	(11) A <u>storage garage</u> shall be separated from other <u>occupancies</u> by at least a 1 1/2 h <u>fire separation</u> .
Vestibules	<p>(12) Where access is provided through a <u>fire separation</u> between a <u>storage garage</u> and a Group A, Division 1 or Group B <u>occupancy</u>, such access shall be through a vestibule conforming to Sentence (14).</p> <p>(13) In <u>buildings</u> exceeding 3 storeys in <u>building height</u>, where access is provided through a <u>fire separation</u> between a <u>storage garage</u> and a Group A, Division 2, 3 or 4, or a Group C <u>occupancy</u>, such access shall be through a vestibule conforming to Sentence (14).</p> <p>(14) Where access is provided through a vestibule, as required in Sentences (1), (12) and (13), the vestibule shall</p> <ul style="list-style-type: none"> (a) be at least 1.8 m in length, (b) be ventilated by natural or mechanical means with outside air at a rate of 14 m³/h for each square metre of vestibule floor surface area, and (c) have the openings between the vestibule and an adjoining <u>occupancy</u> provided with self-closing doors having no hold-open devices.
Dispensing of fuel	<p>3.3.7.7.(1) RESERVED.</p> <p>(2) RESERVED.</p>
Ventilation required	3.3.7.8. Rooms or spaces involving the use of explosive substances shall be ventilated in conformance with Article 3.3.1.14.
Dead-end corridors	<p>3.3.7.9.(1) A dead-end corridor is permitted in a low or medium hazard <u>industrial occupancy</u> where</p> <ul style="list-style-type: none"> (a) the dead-end corridor <ul style="list-style-type: none"> (i) serves an <u>occupant load</u> that does not exceed 30 persons, (ii) does not exceed 9 m in the distance of travel from the most remote point of the dead-end portion to a point where it is possible to go in opposite directions to each of 2 separate <u>exits</u>, and

(iii) is provided with doors having self-closing devices, or

(b) there is a second and separate egress doorway from each room or suite not leading into a dead-end corridor.

(2) A dead-end corridor is permitted in a high hazard industrial occupancy where there is a second and separate egress doorway from each room or suite not leading into a dead-end corridor.

3.3.7.10. Where tools or other objects could fall from the floor of an upper level to a lower level in a room or space intended for use as a Group F occupancy, the edge of the floor at the upper level shall be provided with a toe-board extending from the floor surface to a height at least 125 mm above the floor surface.

SECTION 3.4 REQUIREMENTS FOR EXITS

SUBSECTION 3.4.1. GENERAL REQUIREMENTS

Scope 3.4.1.1.(1) Exit facilities complying with this Section shall be provided from every floor area which is intended for occupancy.

Separation of exits (2) Where more than 1 exit is required from a floor area, each exit shall be separate from every other exit leading from that floor area.

Access to exits (3) Access to exits shall conform to Section 3.3.

Types of exits 3.4.1.2. Subject to the requirements of this Section, an exit from any floor area shall be one of the following used singly or in combination:

exterior doorway,
exterior passageway,
exterior ramp,
exterior stairway,
fire escape,
horizontal exit,
interior passageway,
interior ramp, or
interior stairway.

Restricted use of exits 3.4.1.3.(1) Except as provided in Sentence (2), horizontal exits shall not comprise more than 1/2 the required number of exits from any floor area.

(2) In a hospital or nursing home, horizontal exits serving patients in bed shall not comprise more than

2/3 the required number of exits from any floor area.

(3) A slide escape shall not be erected on any building as a required exit, but may be provided as an additional egress facility where unusual hazards may exist.

(4) No open exterior stairway shall serve as a means of egress for residents above the second floor of a nursing home.

Transparent
doors and panels

3.4.1.4. Glass and transparent panels in an exit shall conform to the appropriate requirements in Article 3.3.1.13. for glass and transparent panels in an access to exit.

SUBSECTION 3.4.2. NUMBER AND LOCATION OF EXITS FROM FLOOR AREAS

Minimum number
required

3.4.2.1.(1) Except as provided in Sentences (2) to (4), every floor area as regulated in Sentence 3.4.1.1.(1) shall be served by not fewer than 2 exits.

(2) In buildings not exceeding 2 storeys in building height, a floor area may be served by 1 exit provided the floor area and travel distance requirements conform to Table 3.4.2.A. and the total occupant load served by the exit does not exceed 60.

Table 3.4.2.A.
Forming Part of Sentence 3.4.2.1.(2)

<u>Occupancy of Floor Area</u>	<u>Maximum Floor Area, m²</u>	<u>Maximum Travel Distance, m</u>
Group A	150	15
Group B	75	10
Group C	125	25
Group D	200	25
Group E	200	25
Group F, Division 2	200	25
Group F, Division 3	200	25
Column 1	2	3

(3) Except as provided in Sentence (4), where a single exit is permitted in Sentence (2) from a floor area classified as Group B or Group C occupancy, the exit shall be an exterior doorway not more than 1.5 m above adjacent ground level.

(4) A floor area containing only dwelling units having access to exit conforming to Sentences 3.3.4.3.(1) to (4) need not comply with Sentence (1).

Mezzanines

(5) Except as permitted in Sentence (6), mezzanines shall be provided with exits on the same basis as required for floor areas in this Section.

(6) A mezzanine need not conform to Sentence (5) where

(a) it is not required to terminate at a vertical fire separation in Article 3.2.8.1., or

(b) if it is required to terminate at a vertical fire separation in Article 3.2.8.1., the area of the mezzanine does not exceed the area limits for rooms and suites in Table 3.3.1.A.

Distance
between exits

3.4.2.2.(1) Except where a floor area is divided by a fire separation so that it is necessary to pass through it to travel from one exit to another exit, the least distance between 2 required exits from a floor area shall be

(a) one half the maximum diagonal dimension of the floor area, but need not be more than 9 m for a floor area having a public corridor, or

(b) one half the maximum diagonal dimension of the floor area, but not less than 9 m for all other floor areas.

(2) The minimum distance between exits referred to in Sentence (1) shall be the shortest distance that smoke would have to travel between the required exits, assuming that the smoke will not penetrate an intervening fire separation.

Travel
distance

3.4.2.3.(1) Except as provided in Sentences (2) and (3), for the purposes of this Subsection, travel distance means the distance from any point in the floor area to an exit measured along the path of exit travel.

(2) For the purposes of this Subsection, travel distance means the distance from any point in the floor area to an exit measured along the path of exit travel, except that the travel distance may be measured from an egress door of a room or suite to the nearest exit where

- (a) the public corridor or a corridor used by the public which serves the room or suite is separated from the remainder of the floor area by a fire separation, or
- (b) the room or suite is served by an exterior passageway.

(3) Where a room or suite is not served by a public corridor conforming to Clause (2)(b), the travel distance may be measured from the entrance to that room or suite provided

- (a) the public corridor has a width of at least 9 m,
- (b) the ceiling height in the public corridor is not less than 4 m above all floor surfaces,
- (c) the building is sprinklered, and
- (d) not more than 1/2 of the required egress doorways from a room or suite open into the public corridor when the room or suite is required to have more than one egress doorway.

Location
of exits

3.4.2.4.(1) Except as provided in Sentence 3.3.2.4.(6), where more than 1 exit is required from a floor area, such exits shall be located so that the travel distance to at least 1 exit as described in Article 3.4.2.3. shall be not more than

- (a) 25 m in any Group F, Division 1 occupancy,
- (b) 45 m in any sprinklered floor area that contains an occupancy other than Group F, Division 1,
- (c) 40 m in any Group D occupancy,
- (d) 60 m in any public corridor where the conditions conform to the requirements in Clauses 3.4.2.3.(3)(a) to (d), and
- (e) 30 m in any other occupancy.

(2) Except for a Group F, Division 1 occupancy, Sentence (1) need not apply if exits are placed along the perimeter of the floor area and are not more than 60 m apart, measured along the perimeter, provided each main aisle in the floor area leads directly to an exit.

(3) Where more than 1 exit is required, every exit shall be considered as contributing not more than 1/2 the required units of exit width.

(4) Exits shall be located and arranged so that they are clearly visible or their locations are clearly indicated and they are accessible at all times.

(5) Where an exit stair in an assembly hall or theatre serves more than 1 balcony level, the exit stair shall be separated from the remainder of the building in conformance with Article 3.4.4.1., and the required units of exit width for the exit stair shall conform to the appropriate requirements for stairs serving interconnected floor spaces in Subsection 3.4.3.

SUBSECTION 3.4.3. WIDTH AND HEIGHT OF EXITS

Exit width

3.4.3.1.(1) The aggregate width of required exits shall be at least the value computed in conformance with Articles 3.4.3.2. and 3.4.3.3.

(2) Except as provided in Article 3.4.3.4. and Sentence 3.4.7.13.(9), the clear width shall be at least

- (a) 1 650 mm in the case of exit stairs and ramps serving patients in bed,
- (b) 1 100 mm in the case of exit corridors and passageways,
- (c) 1 100 mm in the case of exit stairs and ramps that serve more than 3 storeys above grade or more than 1 storey below grade,
- (d) 900 mm in the case of exit stairs and ramps that serve not more than 3 storeys above grade or not more than 1 storey below grade,
- (e) 1 050 mm in the case of exit doorways serving patients in bed, and
- (f) 790 mm in the case of exit doorways not serving patients in bed.

Width based on occupant load

3.4.3.2.(1) For the purpose of determining aggregate width of required exits, the occupant load of every room or floor area of the building to be considered shall be determined in conformance with Subsection 3.1.14.

(2) The aggregate width of exits from a room or floor area expressed as units of exit width (550 mm) shall be determined by dividing the occupant load of the room or floor area by the allowable number of persons per unit of exit width specified in Article 3.4.3.3.

(3) In determining the width in units of an individual exit, the width of the exit in millimetres shall be divided by 550 and, if the remainder is 300 mm or more, it shall be considered as contributing 1/2 unit of exit width.

Cumulative
exit widths

(4) Except as provided in Sentence (5), the required units of exit width shall be cumulative where 2 or more exits converge.

(5) Except as provided in Sentence (6), the required units of exit width need not be cumulative in an exit serving 2 or more floor areas located one above the other.

Exits from
interconnected
floor spaces

(6) Exit stairs that serve interconnected floor spaces as provided in Articles 3.2.8.2. to 3.2.8.10. shall conform to the requirements of Article 3.2.8.3. and of this Section.

Capacity per
unit of exit
width

3.4.3.3.(1) The aggregate width of required exits shall be computed on the basis of the maximum number of persons per unit of exit width as specified in Sentences (2) to (5).

(2) The number of persons per unit of exit width shall be assumed to be 30 in determining the exit requirements from floor areas containing Group B or Group C occupancies.

(3) Except as permitted in Sentences (2) and (4), the number of persons per unit of exit width shall be 90 for exterior exit doors.

(4) The number of persons per unit of exit width for outdoor places of assembly shall conform to Article 3.3.2.10.

(5) Except as provided in Sentences (2) to (4), the number of persons per unit of exit width shall be 60.

Reduction of
exit width

3.4.3.4.(1) No fixture, turnstile or construction shall project into or be fixed within the required width of any exit, except as permitted in Sentences (2) to (4).

(2) Exit doors shall be so hung and arranged that, when open, they shall neither diminish nor obstruct the required width of the exit by more than 50 mm for each full unit of exit width.

(3) Swinging doors in their swing shall not reduce the effective width of exit stairs or landings to less than 750 mm or reduce the effective width of an exit passageway to less than the minimum required width.

(4) No handrail or stair stringer shall project more than 100 mm into the required width of an exit.

**Headroom
clearance**

3.4.3.5.(1) Except as provided in Sentences (2) to (4), every exit shall have a headroom clearance of at least 2 100 mm.

(2) The headroom clearance for stairways measured vertically above any landing or the nosing of any stair tread shall be at least 2 050 mm.

(3) The headroom clearance for doorways shall be at least 2 030 mm.

(4) No device such as a door closer shall be installed so as to reduce the headroom clearance of a doorway to less than 1 980 mm.

**SUBSECTION 3.4.4. REQUIRED FIRE SEPARATION FOR
EXITS**

Table 3.4.4.A.
Forming Part of Sentence 3.4.4.1.(1)

Grade of Fire Separation Required for Floor Assembly, h	Minimum Fire-Resistance Rating for Fire Separation of Exit, h
less than 3/4	3/4
3/4	3/4
1	3/4
1 1/2	1
2	1 1/2
3	2
4	2
Column 1	2

3.4.4.1.(1) Except as provided in Sentences (2), (7), and (8) and in Sentence 3.3.7.6.(3), every exit shall be separated from each adjacent floor area by a fire separation having a fire-resistance rating conforming

to Table 3.4.4.A. for the grade of fire separation required for the floor assembly above the floor area and, where there is no floor assembly above, at least equal to that required for the floor assembly below, but in no case shall the fire-resistance rating be less than 3/4 h.

(2) RESERVED.

Exposure
protection

(3) Except as required in Sentence (5), where an exit enclosure has exterior walls that may be exposed to fire from openings in the exterior walls of the building it serves, the openings in either the exterior walls of the exit or the exterior walls of the building shall be protected with wired glass in fixed steel frames or glass block conforming to Article 3.1.6.10. where the openings in the exterior walls of the building are within 3 m horizontally and

(a) less than 10 m below openings in the exterior walls of the exit, or

(b) less than 2 m above openings in the exterior walls of the exit.

(4) Where an unenclosed exterior exit stair or ramp may be exposed to fire from openings in the exterior walls of the building it serves, the openings in the exterior walls of the building shall be protected with wired glass in fixed steel frames or glass block conforming to Article 3.1.6.10. where the openings in the exterior walls of the building are within 3 m horizontally and

(a) less than 10 m below the exit stair or ramp, or

(b) less than 5 m above the exit stair or ramp.

(5) Except as provided in Sentence (8), where an exterior exit door in one fire compartment is within 3 m horizontally of openings in another fire compartment, and the exterior walls containing such openings intersect at an exterior angle of less than 135°, the openings shall be protected with wired glass in fixed steel frames or glass block conforming to Article 3.1.6.10.

Exits through
lobbies

(6) Except as provided in Sentence (7), an exit from any floor area above or below the first storey shall not lead through a lobby.

(7) Not more than 1 exit from a floor area may lead through a lobby provided

- (a) the lobby floor is not more than 4.5 m above grade,
- (b) the path of travel through the lobby to the outdoors does not exceed 15m,
- (c) the adjacent rooms or premises having direct access to the lobby do not contain a Group C or F occupancy,
- (d) the lobby is not located within an interconnected floor space other than as described in Sentence 3.2.8.1.(8),
- (e) the lobby conforms to the requirements for exits, except that
 - (i) rooms other than service rooms and storage rooms may open onto the lobby,
 - (ii) the fire separation between the lobby and a room used for the sole purpose of control and supervision of the building need not have a fire-resistance rating, and
 - (iii) the fire separation between the lobby and adjacent occupancies that are permitted to open onto the lobby need not have a fire-resistance rating when the lobby and adjacent occupancies are sprinklered, and
- (f) the fire separation required in Sentence (1) shall be maintained between the exit and the lobby.

Exceptions for
exterior
passageways

(8) The requirements in Sentences (1) and (5) do not apply to an exterior exit passageway provided

- (a) at least 50 per cent of the exterior side is open to the outdoors, and
- (b) an exit stair is provided at each end of the passageway.

Integrity of
exits

3.4.4.2.(1) A fire separation that separates an exit from the remainder of the building shall have no openings except for

- (a) standpipe and sprinkler piping,

- (b) electrical wiring, noncombustible conduit and noncombustible piping that serve only the exit,
- (c) openings required by the provisions of Subsections 3.2.6. and 3.2.8., and
- (d) exit doorways.

(2) Exit stairways that are contiguous such as scissors stairs shall be separated from each other by a smoke-tight fire separation having a fire-resistance rating at least equal to that required for the floor assembly through which they pass.

(3) Fire separations separating contiguous stairs in Sentence (2) shall not be pierced by doorways, ductwork, piping or any other openings that affect the continuity of the separation.

(4) An exit shall not be used as a plenum for a heating, ventilating or air-conditioning system.

(5) An exit shall be designed for no purpose other than for exiting, except that an exit may also be designed to serve as an access to a floor area.

(6) Service rooms and ancillary rooms, such as storage rooms, washrooms, toilet rooms and laundry rooms shall not open directly into an exit.

SUBSECTION 3.4.5. EXIT SIGNS

3.4.5.1.(1) Every exit door other than the main entrance to a room or building shall have an exit sign placed over it when the exit serves

- (a) a building exceeding 2 storeys in building height,
- (b) a building having an occupant load greater than 150,
- (c) a room or floor area that has a fire escape as part of a required means of egress, or
- (d) a corridor exceeding 25 m in length and serving patients' or inmates' bedrooms in Group B, Division 2 occupancies.

(2) Except as provided in Sentence (7), every exit sign shall

- (a) be visible from the exit approach,

(b) have the word EXIT or the words EXIT/SORTIE displayed in plain legible letters, and

(c) be designed to be illuminated continuously while the building is occupied.

(3) Lettering on exit signs shall be

(a) red letters on a contrasting background or white letters on a red background, at least 114 mm high with 19 mm stroke spelling EXIT or EXIT/SORTIE when the sign is internally illuminated, and

(b) white letters on a red background or red letters on a white background at least 150 mm in height with 19 mm stroke spelling EXIT or EXIT/SORTIE when the sign is externally illuminated.

(4) The lighting for exit signs shall

(a) be supplied by an electrical circuit that

(i) is separate from other circuits, or

(ii) serves other emergency equipment, and

(b) be connected to an emergency power supply as described in Sentence 3.2.7.3.(2) where emergency lighting is required in Sentence 3.2.7.3.(1).

(5) Where necessary, signs shall be provided to indicate the direction of egress in public corridors and passageways, and shall have the word EXIT or the words EXIT/SORTIE with a suitable arrow or pointer indicating the direction of egress, and the size of lettering shall conform to Sentence (3).

(6) Except for egress doors described in Sentence 3.3.2.3.(3) and except for the main entrance door, an exit sign conforming to Sentences (2), (3) and (4) shall be placed over every egress door from rooms with an occupant load of more than 60 in Group A, Division 1 occupancies, dance halls, licensed beverage establishments and other similar occupancies that, when occupied, have lighting levels below that which would provide easy identification of the egress door.

(7) Where an exit sign having the word EXIT is installed in conformance with Sentences (1), (5) or (6), an additional sign having the word SORTIE may be installed.

3.4.5.2. In buildings over 2 storeys in building height, any part of an exit ramp or stair that continues past an exterior exit door down to a basement shall be clearly marked by a sign indicating that it does not lead to an exit.

SUBSECTION 3.4.6. LIGHTING FOR EXITS

3.4.6.1. Lighting for exits shall conform to Subsection 3.2.7.

SUBSECTION 3.4.7. TYPES OF EXIT FACILITY

Stairs and ramps

3.4.7.1. Except when stated otherwise, the requirements in this Section apply to both interior and exterior exits.

3.4.7.2.(1) The finish for treads and landings of interior and exterior stairs and ramps accessible to the public shall have a slip-resistant finish or be provided with slip-resistant strips which extend not more than 1 mm above the surface of the tread, landing or ramp.

(2) Treads and landings of exterior exit stairs more than 10 m in height shall be designed to be free of ice and snow accumulations.

3.4.7.3. Every flight of interior stairs shall have at least 3 risers.

3.4.7.4.(1) No flight of stairs shall have a vertical rise of more than 3.7 m between floors or landings, except that flights of stairs serving as exits from rooms intended for infirm persons shall have a vertical rise of not more than 2.4 m between floors or landings.

Landings for stairways

(2) The length and width of landings shall be at least the width of stairways in which they occur, except that in a straight run the length of a landing need not exceed 1 100 mm

Handrails

3.4.7.5.(1) Every exit ramp or stairway shall have a handrail on at least 1 side, and where 1 100 mm or more in width, shall have handrails on both sides.

(2) Where the required width of a ramp or flight of stairs exceeds 2 200 mm, 1 or more intermediate handrails continuous between landings shall be provided, and the number and position of these intermediate handrails shall be such that there will be not more than 1 650 mm between handrails.

(3) Handrails shall be constructed so that there will be no obstruction on or above them which will break a hand hold.

(4) Handrails on stairs and ramps shall be not less than 800 mm and not more than 920 mm in height, measured vertically from a line drawn through the outside edges of the stair nosing or from the surface of the ramp, except that handrails not meeting these requirements are permitted provided they are installed in addition to the required handrail.

(5) At least 1 handrail shall be continuous throughout the length of the stairway, including landings, except where interrupted by doorways or newels at changes in direction.

(6) Handrails shall be terminated in a manner which will not obstruct pedestrian travel or create a hazard.

(7) Handrails at the sides of stairs and ramps shall extend horizontally at least 300 mm beyond the top and bottom of the stairways and ramps.

(8) A clearance of at least 40 mm shall be provided between every handrail and any wall to which it is fastened.

(9) Windows in exit stairways that extend to less than 1 070 mm above the landing shall be protected by a barrier or railing located approximately 1 070 mm above such landing, except that in residential occupancies such windows shall be protected in accordance with the requirements of Sentence 3.3.1.13.(5).

Guards

3.4.7.6.(1) Every exit such as a ramp, stairway or passageway shall have a wall or a well-secured guard on each side.

(2) Except as provided in Sentence (3), the height of guards on exit stairs shall be not less than 920 mm measured vertically to the top of the guard from a line drawn through the outside edges of the stair nosings and 1 070 mm around landings.

(3) The height of guards of exterior stairs and landings more than 10 m above adjacent ground level shall not be less than 1 500 mm measured vertically to the top of the guard from a line drawn through the outside edges of the stair nosings.

(4) The size of any opening through guards for exits shall be such as to prevent the passage of a spherical object having a diameter of 100 mm in buildings of residential occupancy and 200 mm in buildings of other occupancy, except where the location and size of the openings that exceed this limit do not present a hazardous condition.

Ramp gradient
and landings

3.4.7.7.(1) Except as required in Section 3.7, the maximum gradient of ramps shall be

- (a) 1 in 10 in any Group A, B or C occupancy,
- (b) 1 in 6 in rooms or floor areas classified as Group E or Group F occupancy,
- (c) 1 in 8 from any other floor area, and
- (d) 1 in 10 for every exterior ramp.

(2) Where a doorway or stairway empties onto a ramp through a side wall, there shall be a level area extending across the full width of the ramp, and for a distance of 300 mm on either side of the wall opening, excepting one side when it abuts on an end wall.

(3) Where a door or stairway empties through an end wall onto a ramp, there shall be a level area across the full width of the ramp and along its length for at least 900 mm.

Stairs treads
and risers

3.4.7.8.(1) Except as otherwise permitted for fire escapes in Sentence 3.4.7. 13.(6), treads in every exit stair shall have a run of not less than 230 mm and not more than 355 mm exclusive of nosings.

(2) Stairs in Sentence (1) shall have a rise between successive treads of not less than 125 mm and not more than 200 mm.

(3) Treads and risers in every exit stair, except a fire escape stair, shall have uniform run and rise in any one flight, and shall not alter significantly in run and rise in successive flights in any stair system.

(4) Where the run of any tread in an exit stair is less than 250 mm, a nosing of at least 25 mm shall be provided beyond the face of the riser, or an equivalent back slope on the riser shall be provided.

(5) The front edge of stair treads in exits and public access to exits shall be at right angles to the direction of exit travel.

Winders

3.4.7.9.(1) Except as provided in Sentence (2), winders shall not be used in a required exit.

(2) Where a curved stair is used as an exit, it shall have

- (a) a handrail on both sides,
- (b) treads with a minimum run of 240 mm exclusive of nosing,
- (c) treads which conform to Article 3.4.7.8. where they are measured 230 mm away from the handrail at the narrow end of the tread, and
- (d) an inside radius which is not less than twice the stair width

Horizontal exits

3.4.7.10.(1) The floor area on each side of a horizontal exit shall be sufficient to accommodate the occupants of both floor areas, allowing not less than 0.5 m² of clear floor space per person, except that 1.5 m² shall be provided for each person in a wheelchair and 2.5 m² for each bedridden patient.

(2) Where vestibules, enclosed balconies or bridges are used as parts of any horizontal exit, their clear width shall be at least that of the exit doorways opening into them, except that handrails may not project into this clear width more than 100 mm.

(3) In any horizontal exit where there is a difference in level between the connected floor areas, gradients not exceeding those specified for ramps in Article 3.4.7.7. may be used.

(4) No stairs or steps shall be used in a horizontal exit.

(5) Where 2 doors are provided in a horizontal exit that comprises a part of the required number of exits from the floor areas on both sides of the exit

- (a) the doors shall be mounted adjacent to each other and swing in opposite directions, and
- (b) signs shall be provided on each side of the exit to indicate the door that swings in the direction of travel from that side.

Bridges and balconies as horizontal exits

(6) Where horizontal exits utilize bridges between buildings or outside balconies, such bridges or balconies shall conform to Article 3.2.3.14.

(7) Guards shall be at least 1.2 m in height and the least dimension of any opening through the guard shall not be greater than 100 mm.

(8) Every opening in the exterior walls of buildings to which such bridges or balconies are attached shall be protected, as required for openings adjacent to fire escapes in Sentence 3.4.7. 13.(5), except that where bridges have solid sides not less than 1.8 m in height, such protection of wall openings may be omitted.

Exterior exit passageways

3.4.7.11.(1) Access to exterior exit passageways from a floor area shall be through exit doors at the floor level.

(2) Every exterior exit passageway which has a drop of more than 500 mm on any side shall have guards on the open sides at least 1 070 mm high.

(3) Where an exterior exit passageway provides the only means of egress from the rooms or suites it serves, the wall and ceiling finishes of that passageway, including the soffit beneath and the guard on the passageway, shall have a flame-spread rating of not more than 25, except that up to 10 per cent of the total wall area and 10 per cent of the total ceiling area is permitted to have a flame-spread rating of not more than 150.

Doors

3.4.7.12.(1) No exit door shall open immediately onto a flight of stairs, but shall open onto a landing at least 300 mm wider and longer than the width of such door.

(2) No riser of any flight of stairs shall be located within 300 mm of an exit door.

(3) No exit door shall open directly onto a step except that, where there is danger of blockage from ice or snow, an exit door may open onto not more than 1 step which shall not exceed 150 mm in height.

(4) Exit doors shall be clearly identifiable and no hangings or draperies shall be placed over exit doors to conceal or obscure any exit.

(5) Every door leaf in an exit doorway where more than 1 leaf is provided shall be not less than 600 mm in width.

Mirrors	(6) No mirrors shall be placed in or adjacent to any <u>exit</u> in such a manner as to confuse the direction of <u>exit</u> .
Direction of swing	(7) Every <u>exit</u> door shall open in the direction of <u>exit</u> travel except for doors serving a single <u>dwelling unit</u> , and shall swing on its vertical axis.
Self-closing devices	(8) Every <u>exit</u> door that is normally required to be kept closed shall be provided with a reliable self-closing mechanism, and shall not at any time be secured in an open position except as specified in Sentence 3.1.6.8.(3).
Sliding doors	(9) <u>Exit</u> doors leading directly to outdoors at ground level may be sliding doors provided they conform to Sentence 3.3.1.8.(3).
Revolving doors	(10) Where revolving doors are used, they shall <ul style="list-style-type: none"> (a) be collapsible, (b) have hinged doors providing equivalent units of <u>exit</u> width located adjacent to them, (c) be used as an <u>exit</u> from the ground floor level only, and (d) not be less than 3 m from the foot of any stairway. <p>(11) A revolving door may be considered to provide not more than 1/2 unit of <u>exit</u> width.</p>
Release hardware	(12) Except as required in Article 3.7.3.3., where a door is equipped with a latching mechanism, a device that will release the latch and allow the door to swing wide open when a force of not more than 90 N is applied to the device in the direction of <u>exit</u> travel shall be installed on <ul style="list-style-type: none"> (a) every <u>exit</u> door from a <u>floor area</u> containing a Group A <u>occupancy</u> having an <u>occupant load</u> of more than 100 persons, (b) every door leading to an <u>exit</u> lobby from an <u>exit</u> stair shaft, and every exterior door leading from an <u>exit</u> stair shaft in <u>buildings</u> having an <u>occupant load</u> of more than 100 persons, and (c) every <u>exit</u> door from a <u>floor area</u> containing a Group F, Division 1 <u>occupancy</u>.

(13) Every exit door shall be designed and installed so that, when the latch is released, the door will open in the direction of exit travel under a force of not more than 90 N, applied at the knob or other latch releasing device.

(14) Except for doors of rooms where persons are under legal restraint and as permitted in Sentence (15), fastenings on any required exit door shall be such that the door may be readily opened from the inside without requiring keys, special devices or specialized knowledge of the door opening mechanism.

Electromagnetic
locking devices

(15) An electromagnetic locking device that does not incorporate latches, pins or other similar devices to keep the door in the closed position may be installed on an exit door other than a door leading directly from a Group F, Division 1 occupancy provided

- (a) the building is equipped with a fire alarm system conforming to Subsection 3.2.4.,
- (b) the locking device is installed as an ancillary device to the fire alarm system and releases immediately
 - (i) upon activation of the fire alarm signal,
 - (ii) in the event of a power failure or ground fault, and
 - (iii) upon actuation of a manually operated switch accessible only to authorized personnel manning a central control facility at all times the building is occupied,
- (c) a manually actuated signalling box for the fire alarm system is located on the wall not more than 600 mm from the door,
- (d) upon release, the locking device must be reactivated manually by the actuation of the switch in Subclause (b)(iii),
- (e) a legible sign having the words EMERGENCY EXIT UNLOCKED BY FIRE ALARM is permanently mounted on the exit door, and
- (f) the lettering on the sign required in Clause (e) shall be at least 25 mm high with a 5 mm stroke.

Emergency access
to floor areas

(16) In building more than 6 storeys in building
height,

(a) access to floor areas from exit stairs shall
be provided by doors having no locking
devices to prevent entry into

(i) any floor area designated as an area
of refuge,

(ii) floor areas located at intervals of 5
storeys or less, and

(iii) at least one of the three highest
storeys, and

(b) doors required in Clause (a) that provide
access into the floor area shall be
identified by a sign on the stairway side to
indicate that they are openable from that
side.

(17) Where access to floor areas through unlocked
doors is required in Clause (16)(a), it shall be
possible for a person entering such floor area to
have access through unlocked doors within the floor
area to at least one other exit.

(18) Arabic numerals indicating the assigned floor
number shall

(a) be mounted permanently on the stair side of
the wall at the latch side of doors to
exit stair shafts,

(b) be at least 60 mm high, raised approximately
0.7 mm above the surface,

(c) be located 1 500 mm from the finished floor
and not more than 300 mm from the door, and

(d) be contrasting in colour with the surface on
which they are applied.

Fire escapes

3.4.7.13.(1) Except as provided in Sentence (2), fire
escapes shall not be erected on buildings.

(2) Where it is impractical to provide 1 or more of
the exit facilities in Article 3.4.1.2., fire escapes
conforming to Sentences (3) to (13) may serve floor
areas in existing buildings provided the floor areas
served are not more than

- (a) 2 storeys above ground level in Group B occupancies, and
- (b) 5 storeys above ground level in other occupancies.
- (3) Fire escapes shall be of metal or concrete, of the stair type extending to ground level, constructed throughout in a strong substantial manner and securely fixed to the building, except that wooden fire escapes may be used on buildings of combustible construction if all posts and brackets are at least 89 mm in their least dimension and all other woodwork is at least 38 mm in its least dimension.
- (4) Access to fire escapes shall be from corridors through doors at floor level, except that access from a dwelling unit may be through a casement window having an unobstructed opening of not less than 1 100 mm high, by 550 mm wide with a sill height of not more than 900 mm above the inside floor.
- (5) Where a fire escape serves any storey above the second, openings, including access doorways in the exterior walls of the building to which the fire escape is attached, shall be protected by closures conforming to Subsection 3.1.6. where they are located within 3 m horizontally of, 3 storeys or 10 m below, or 1.8 m above any balcony, platform or stairway of a fire escape.
- (6) Stairs shall be inclined at an angle of not more than 45° with the horizontal, and shall have risers of not more than 210 mm in height and treads of not less than 220 mm in width exclusive of nosing.
- (7) Stairway headroom shall be not less than 1 950 mm plus the height of 1 riser measured vertically above the nosing of any tread or platform.
- (8) Where doors open onto fire escape balconies, such balconies shall have a clear area of not less than 1 m².
- (9) The width of a fire escape shall conform to Sentence 3.4.3.1.(1), except that the fire escape shall be at least 550 mm wide when serving
- (a) not more than 3 storeys, and
- (b) not more than 15 persons.
- (10) The open sides of every platform, balcony and stairway shall be protected by guards at least 920 mm

in height measured vertically above the nosing of any tread or platform.

(11) Two equally spaced rails not more than 460 mm apart, parallel to stair stringers and to platform edges, shall be the minimum protection provided, and the top rail may serve as a handrail if free from obstructions which could break a hand hold.

(12) A wall handrail shall be installed where the fire escape is more than 550 mm in width.

(13) Where the flight of stairs leading to the ground at the foot of a fire escape is not fixed in position, it shall be held in the "up" position without a latch or locking device, and shall be fitted with a counterbalancing device that will permit it to be easily and quickly brought into position for use.

SECTION 3.5 SERVICE SPACES

SUBSECTION 3.5.1. GENERAL

Scope 3.5.1.1. The provisions of this Section apply to attic, duct, crawl and shaft spaces and service rooms, mechanical penthouses and facilities contained therein.

Electrical wiring and equipment 3.5.1.2.(1) RESERVED.

(2) Lighting outlets in dwelling units shall be provided in conformance with Subsection 9.35.2.

Design and installation of service facilities 3.5.1.3. Heating, ventilating and air-conditioning equipment shall be designed and installed in conformance with the requirements in Part 6.

Integrity of fire separations 3.5.1.4. All service facilities passing through required fire separations shall conform to Subsections 3.1.6., 3.1.7., 3.5.3. and 3.5.4. to ensure that the integrity of the fire separation is maintained.

Storage use prohibited 3.5.1.5. Service spaces provided to contain service facilities shall not be designed to facilitate subsequent use as storage space.

SUBSECTION 3.5.2. SERVICE ROOMS

Fuel-fired appliances 3.5.2.1.(1) Fuel-fired appliances shall not be installed in any exit or any corridor serving as access to exit.

Fire Separations

(2) Except as provided in Sentences (3) and (4), fuel-fired appliances shall be located in a service room or service space separated from the remainder of the building by a fire separation having a fire-resistance rating of not less than

- (a) 2 h in buildings classified as Group B or Group F, Division 1 occupancy where such buildings exceed 2 storeys in building height or 400 m² in building area,
- (b) that required for portable classrooms in Article 3.9.4.3., and
- (c) 1 h in buildings other than as described in Clauses (a) and (b).

(3) No fire separation is required for fireplaces or roof-top appliances.

(4) Except for buildings classified as Group B or Group F, Division 1 major occupancy, the fire separations required in Sentence (2) need not be provided for fuel-fired appliances where it can be shown that the separation is not necessary and the appliance

- (a) serves not more than 1 room or suite, or
- (b) serves a building with a building area of not more than 400 m² and a building height of not more than 2 storeys.

Service rooms prohibited under exits

3.5.2.2. Service rooms containing service equipment subject to possible explosion such as boilers operating in excess of 100 kPa (gauge) and some types of refrigerating machinery and transformers shall not be located directly under required exits.

Service equipment

3.5.2.3. Service rooms containing space heating, space cooling and service water heating appliances may contain other service equipment such as electrical service equipment.

Service machinery rooms

3.5.2.4.(1) Except as provided in Sentences (3) and (4), service rooms used for purposes other than those described in Articles 3.5.2.1., 3.5.2.5. and 3.5.2.6. shall be separated from the remainder of the building by a fire separation having a fire-resistance rating of at least 1 h when the floor area containing such rooms is not sprinklered.

(2) Where a service room is intended to contain equipment that uses a liquid having a flash point

below 93.3°C, the requirements in Article 3.5.2.1. shall apply.

(3) Where a room contains a limited quantity of service equipment, and the service equipment does not constitute a fire hazard, the requirements for a fire separation or sprinklering in Sentence (1) shall not apply.

(4) A service room containing elevator machinery need not be separated from the elevator hoistway connected to it provided the service room is separated from all other parts of the building by a fire separation having a fire-resistance rating at least equal to that required for the vertical service space containing the elevator hoistway.

Incinerator rooms

3.5.2.5.(1) Service rooms containing an incinerator shall be separated from the remainder of the building by a fire separation having a fire-resistance rating of at least 2 h.

(2) Service rooms containing an incinerator shall not contain other fuel-fired appliances.

Combustible refuse

3.5.2.6. Except as provided in Sentence 3.5.3.2.(9), rooms for the temporary storage of combustible refuse such as garbage or waste paper shall be separated from the remainder of the building by a 1 h fire separation and be sprinklered.

Doors to service rooms

3.5.2.7. Swing-type doors from a service room such as a boiler or incinerator room shall swing outward from such rooms, except that the door shall swing inward when the door opens on a corridor or any room for assembly purposes.

Transformer vaults

3.5.2.8.(1) Where a transformer is required by the provisions of a regulation under the Power Corporation Act, the transformer vault shall be separated from the remainder of the building by a fire separation of solid masonry or concrete construction having a fire-resistance rating of not less than 3 h if the vault is not provided with an automatic fire extinguishing system and not less than 2 h if the vault is so protected.

(2) Where a building is required to be sprinklered, the transformer vault described in Sentence (1) need not be sprinklered provided

(a) the vault is designed for no purpose other than to contain the transformer and its associated equipment, and

(b) where the building is required to be equipped with a fire alarm system, a smoke detector is provided in the vault which will actuate the building fire alarm system in the event of a fire in the vault.

(3) Only pipes or ducts necessary for fire protection or the proper operation of the electrical installation shall penetrate the fire separations surrounding the transformer vault.

(4) Explosion-relief devices and vents or other protective measures shall be provided for every transformer vault containing an oil-filled transformer in conformance with Sentence 3.3.1.14.(2).

(5) Every transformer vault shall be provided with a ventilation system designed in conformance with Part 6 to prevent the ambient temperature in the vault from exceeding 40°C.

(6) The vault ventilation system in Sentence (5) shall be separate from the system for the remainder of the building and shall be designed so that it is automatically shut off in the event of a fire in the vault.

(7) Every transformer vault containing an oil-filled transformer shall be provided with a method of draining any oil deposited on the floor.

(8) Doorways in fire separations between a transformer vault containing an oil-filled transformer and the remainder of the building shall be provided with concrete sills that are of sufficient height to confine within the vault all the oil from the largest transformer but not less than 100 mm in height.

3.5.2.9 In buildings that are required to be sprinklered, sprinklers in elevator machine rooms shall have a temperature rating not less than that required for an intermediate temperature classification and be protected with guards.

SUBSECTION 3.5.3. VERTICAL SERVICE SPACES AND SERVICE FACILITIES

Fire separations

3.5.3.1.(1) Except as provided in Sentence (2), every vertical service space shall be separated from each adjacent floor area by a fire separation having a fire-resistance rating conforming to Table 3.5.3.A. for the grade of fire separation required for the floor assembly above the floor area and, where there

is no floor assembly above, for the grade of fire separation required for the floor assembly below.

Table 3.5.3.A.
Forming Part of Sentence 3.5.3.1.(1)

<u>Grade of Fire Separation Required for Floor Assembly,</u> h	<u>Minimum Fire-Resistance Rating of Vertical Service Space,</u> h	<u>Minimum Fire-Resistance Rating of Elevator Shaft,</u> h
less than 3/4	—	3/4
3/4	3/4	3/4
1	3/4	3/4
1 1/2	1	1
2	1	1 1/2
3	1 1/2	2
Column 1	2	3

(2) Vertical service spaces containing elevators for use by fire fighters in Articles 3.2.6.4. and 3.3.1.5. shall be separated from each adjacent floor area by a fire separation having a fire-resistance rating at least equal to that required for the floor assembly above the floor area and, where there is no floor assembly above, at least equal to that required for the floor assembly below, but in no case shall the fire-resistance rating be less than 3/4 h.

(3) Every vertical service space that does not extend through the roof of a building shall be enclosed at the top with construction having a fire-resistance rating at least equal to that required for the service space walls.

(4) Every vertical service space that does not extend to the bottom of a building shall be enclosed at the lowest level with construction having a fire-resistance rating at least equal to that required for the service space walls.

(5) Vents from vertical service spaces not extending to the roof shall be enclosed within the building with construction having a fire-resistance rating at least equal to that required for the service space walls.

Openings

(6) Only openings that are necessary for the use of vertical service space shall be permitted in the service space enclosure.

(7) Foamed plastic insulation in vertical service spaces shall be protected in conformance with Sentence 3.1.4.5.(2).

3.5.3.2.(1) Every linen or refuse chute shall

- (a) be impervious to moisture,
- (b) have a smooth internal surface,
- (c) be corrosion-resistant,
- (d) be constructed of noncombustible material, and
- (e) be located in a shaft in which there are no services other than noncombustible drain, waste and vent piping or noncombustible water piping.

(2) Every shaft containing a linen or refuse chute shall have a fire-resistance rating conforming to Sentence 3.5.3.1.(1), but not less than

- (a) 1 h where the chute outlet for the discharge room is protected by an automatic, self-latching closure held open by a fusible link, or
- (b) 2 h where no closure is provided at the chute outlet into the discharge room.

(3) Every interior linen or refuse chute shall extend at least 1 m above the roof and shall be vented above the roof with a vent which

- (a) has an unobstructed area at least equal to the cross-sectional area of the chute, and
- (b) is equipped with a cover that will open automatically or that can be opened manually in the event of a fire in the chute.

(4) Intake openings for linen or refuse chutes shall

- (a) be not greater in area than 60 per cent of the cross-sectional area of the chute, and
- (b) be fitted with closures designed to close automatically and latch after use.

(5) Intake openings for linen or refuse chutes shall be located in rooms or compartments that

- (a) have no dimension less than 750 mm,
- (b) are separated from the remainder of the building by at least a 3/4 h fire separation, and
- (c) are designed for no other purpose.

(6) Sprinklers shall be installed at the top of each linen and refuse chute, at alternate floor levels and in the room or bin into which the chute discharges.

(7) The room into which a linen chute discharges shall be separated from the remainder of the building by at least a 1 h fire separation.

(8) Every refuse chute shall be equipped at the top with spray equipment for washing-down purposes.

(9) A refuse chute shall discharge only into a room or bin separated from the remainder of the building by at least a 2 h fire separation.

(10) The room or bin into which a refuse chute discharges shall be of sufficient size to contain the refuse between normal intervals of emptying, be impervious to moisture and be equipped with a water connection and floor drain for washing-down purposes.

(11) Rooms into which refuse chutes discharge shall contain no service equipment that is not related to garbage handling and disposal.

Negative
pressure
required

3.5.3.3. When a vertical service space contains an exhaust duct that serves more than 1 fire compartment, the duct shall have a fan located at or near the exhaust outlet to ensure that the duct is under negative pressure.

SUBSECTION 3.5.4. HORIZONTAL SERVICE SPACES AND SERVICE FACILITIES

Scope

3.5.4.1. This Subsection applies to horizontal service spaces and service facilities, including ceiling spaces, duct spaces, crawl spaces and attic or roof spaces.

Fire separations

3.5.4.2. A horizontal service space that penetrates a required vertical fire separation shall be separated from the remainder of the building it serves in conformance with Sentence 3.1.6.3.(2).

Ceiling spaces
used as plenums

3.5.4.3.(1) The concealed space between the ceiling and floor or ceiling and roof used as a plenum need

not conform to Sentence 3.1.4.5.(4) and Article 6.2.3.2. provided

- (a) all materials within the space have a flame-spread rating of not more than 25 and a smoke developed classification of not more than 50, except for tubing for pneumatic controls and minor components of electrical wiring systems as permitted in regulations made under the Power Corporation Act, and
- (b) the supports for the ceiling membrane are of noncombustible material having a melting point of at least 760°C.

(2) When the concealed space in Sentence (1) is used as a return-air plenum and incorporates a ceiling membrane that forms part of the required fire-resistance rating of the assembly, every opening through the membrane shall be protected by a fire stop flap which shall

- (a) stop the flow of air into the concealed space in the event of a fire,
- (b) be supported in a manner that will maintain the integrity of the ceiling membrane for the duration of time required to provide the required fire-resistance rating, and
- (c) conform to the appropriate requirements of Chapter 2, "Fire Performance Ratings" of the Supplement to the NBC 1985.

Access

3.5.4.4.(1) On buildings more than 3 storeys in building height where the slope of the roof is less than 1 in 4, all main roof areas shall be provided with direct access from the floor areas immediately below, either by a stairway or by a hatchway at least 550 mm by 900 mm with a suitable fixed ladder.

(2) Every attic or roof space more than 600 mm in height shall be provided with access from the floor immediately below by a hatchway at least 550 mm by 900 mm or by a stairway.

(3) Horizontal service spaces consisting of ceiling and duct spaces which are more than 1 200 mm in height and 600 mm in width shall have access doors at least 600 mm in both horizontal and vertical dimensions, or shall have inspection doors at least 300 mm in both horizontal and vertical dimensions placed so that the entire interior of the duct or space can be viewed.

(4) Every crawl space shall have at least 1 access opening at least 550 mm by 900 mm.

Ventilation

3.5.4.5. Every unheated crawl space, attic or roof space shall be ventilated by natural or mechanical means in accordance with Part 9.

SUBSECTION 3.5.5. ELEVATORS, DUMBWAITERS AND ESCALATORS

3.5.5.1. RESERVED.

3.5.5.2.(1) Except as permitted in Sentence (3), in buildings having elevators that serve storeys above the first storey and that are equipped with an automatic emergency recall feature, smoke detectors shall be installed in the elevator lobbies on the recall level so that when activated, the elevators will automatically return directly to an alternate floor level.

(2) Smoke detectors in Sentence (1) shall be designed as part of the building fire alarm system.

(3) The alternate floor recall feature in Sentence (1) is not required if the floor area containing the recall level is sprinklered.

SECTION 3.6 HEALTH REQUIREMENTS

SUBSECTION 3.6.1. HEIGHT AND AREA OF ROOMS

3.6.1.1.(1) The height of every room and space shall be such that adequate light and air may be provided for the intended occupancy, and that no obstruction to movement or activities below is caused by the ceiling or ceiling fixtures.

(2) The unobstructed height in dwelling units, sleeping rooms and bedrooms in Group C occupancies shall conform to Part 9.

3.6.1.2. The areas and widths of rooms in dwelling units, dormitories, boarding houses and rooming houses shall conform to Part 9.

3.6.1.3.(1) A sleeping area in a Group B occupancy shall provide at least 4.7 m² per person in a room having

(a) an area not less than 7 m²,

(b) a horizontal dimension not less than 2 m, and

(c) a ceiling height not less than 2.3 m.

(2) Day care centres shall provide sleeping accommodation having not less than 0.93 m^2 of floor surface area for each child with not less than 2.3 m ceiling height over the entire room area.

SUBSECTION 3.6.2. WINDOWS

3.6.2.1. Unless otherwise permitted, every room used for sleeping in any building, and every principal room such as living room, dining room or combination thereof in dwelling units shall be provided with windows having areas conforming to Part 9, except that Article 9.7.1.3 does not apply.

3.6.2.2.(1) In Group C major occupancy apartment buildings protection shall be provided at windows to minimize the hazards to children in accordance with Sentences (2) to (5).

(2) Fixed windows within dwelling units that extend to less than 1 m from the floor in buildings of residential occupancy shall be protected by guards to at least 1 m above the floor, or shall be designed to withstand the lateral design loads for balcony guards in Part 4.

(3) Except as provided in Sentence (4), in dwelling units any window located more than 2 m above grade which opens within 1.5 m of the floor shall be protected

(a) by a guard in conformance with Sentence 3.3.1.12.(3),

(b) with controlled sash operation and a screen in accordance with Sentence (5), or

(c) by an alternative device which does not reduce the degree of safety provided by Clauses (a) or (b).

(4) Protection of a window need not be provided in a dwelling unit where an exterior balcony is constructed for the full length of the window.

(5) Where protection is provided for a window opening in accordance with Clause (3) (b), controlled sash operation and a screen shall comply with

(a) CGSB 63-GP-2, "Windows, Extruded Aluminum, Vertical and Horizontal Sliding, Medium Duty",

- (b) CGSB 63-GP-3, "Windows, Extruded Aluminum, Vertical and Horizontal Sliding, Standard Duty",
- (c) CGSB 63-GP-5, "Windows, Steel, Vertical and Horizontal Sliding, Standard Duty", or
- (d) CGSB 63-GP-6, "Windows, Steel, Vertical and Horizontal Sliding, Medium Duty".

SUBSECTION 3.6.3. VENTILATION

3.6.3.1. Ventilation shall conform to Part 6.

SUBSECTION 3.6.4. PLUMBING FACILITIES

Systems
required

3.6.4.1.(1) Except as permitted in Sentence (3), each building situated on property that abuts on a street in which a public or municipal water main is located shall be provided with or have accessible to its occupants a plumbing system including a potable water supply, a sanitary drainage system and toilet fixtures.

(2) When the installation of a sanitary drainage system is not possible because of the absence of a water supply, sanitary privies, chemical closets or other means for the disposal of human waste shall be provided.

(3) Plumbing facilities need not be provided in a building which is not normally occupied by persons where such installations are impractical and other facilities are available in nearby buildings when the subject building is in use.

Minimum number
of fixtures

3.6.4.2.(1) Except as provided in Sentence (22), water closets and other plumbing facilities shall be provided for each sex in accordance with the anticipated proportion of each sex in the occupancy when this can be determined with reasonable accuracy, except that when such a determination cannot be made with reasonable accuracy, it shall be assumed that the occupancy is equally divided between the sexes.

(2) Where 2 water closets are required in this Subsection, urinals may be substituted for 2/3 of the required number of water closets and may be counted as water closets, except that where only 2 water closets are required, 1 urinal may be substituted for 1 of the water closets.

(3) Except as provided in Sentences (4), (6), (15) and (20), at least 1 lavatory shall be provided in a room containing 1 or 2 water closets or urinals, and

Table 3.6.4.A.
Forming Part of Sentence 3.6.4.2.(5)

Type of <u>Floor Area</u> or Room	Reference Article or Maximum Number of Persons per Water Closet	
	Male	Female
Group A, <u>Assembly Occupancies</u>		
1) Group A, Division 1, except motion picture <u>theatres</u>	3.6.4.2.(11)	
2) Motion picture <u>theatres</u>	3.6.4.2.(12)	
3) Group A, Division 3 and 4 <u>occupancies</u>	3.6.4.2.(12)	
4) dance halls and recreational establishments	100	75
5) classrooms, primary and secondary	30	26
6) college <u>buildings</u> , non-residential	100	75
7) dining rooms and restaurants	public: 3.6.4.2.(13) employees: 3.6.4.2.(15)	
8) establishments used primarily for the consumption of alcoholic beverages (limited or no food service)	public: 3.6.4.2.(14) employees: 3.6.4.2.(15)	
9) drive-in <u>theatres</u> and restaurants	3.6.4.2.(13)	
10) day care centres	3.6.4.2.(20)	
11) places of worship and undertaking premises	150	150
12) all other <u>assembly occupancies</u>	3.6.4.2.(18)	
Group B, <u>Institutional Occupancies</u>		
1) Division 1	3.6.4.2.(19)	
2) Division 2	8	8
Group C, <u>Residential Occupancies</u>		
1) <u>dwelling units</u>	9.32.4.	
2) all other <u>residential occupancies</u>	3.6.4.2.(10)	
Group D, <u>Business and Personal Service Occupancies</u>	3.6.4.2.(10)	
Group E, <u>Mercantile Occupancies</u> , except restaurants	3.6.4.2.(10) and (21)	
Group F, <u>Industrial Occupancies</u>	3.6.4.2.(10)	
Column 1	2	3

at least 1 additional lavatory shall be provided for each additional 2 such fixtures.

(4) Wash fountains in circular or straight trough form may be provided in lieu of lavatories required in Sentence (3) provided each 500 mm of circumference

or trough length is considered to be the equivalent of 1 lavatory.

(5) Except as provided in Sentence (8), the minimum number of water closets shall be determined from Table 3.6.4.A. for an occupant load based on,

(a) an area of 14 m² per person in Group D, business and personal services occupancy, and

(b) Subsection 3.1.14. for all other occupancies.

(6) In a Group F occupancy, at least 1 lavatory shall be provided for each water closet required in Table 3.6.4.B.

(7) On every floor where work will be performed and within 100 m of any area where work will be performed, potable drinking water shall be provided from,

(a) a fountain with an upward jet

(b) a tap from a piped water supply, or

(c) a tap from a covered vessel.

(8) Where mobile homes do not have individual sanitary facilities connected to a central water supply and drainage system, a service building shall be provided for public use and shall contain at least one water closet for each sex where the facilities serve not more than 10 mobile homes, and where the facilities serve more than 10 mobile homes, an additional water closet for each sex shall be provided for each additional 10 mobile homes.

(9) Where a service building is required by Sentence (8), it shall contain lavatories as required in Sentence (3) and at least

(a) 1 laundry tray or similar facility, and

(b) 1 bathtub or shower for each sex.

(10) The minimum number of water closets shall conform to Table 3.6.4.B. for

(a) Group C occupancies, except for dwelling units,

(b) Group D occupancies,

(c) Group E occupancies, as determined by the number of employees, and

(d) Group F occupancies, as determined by occupant load

Table 3.6.4.B.

Forming Part of Sentence 3.6.4.2.(10)

Number of persons of Each Sex	Minimum Number of Water Closets for Each Sex
up to 9	1
10 to 24	2
25 to 49	3
50 to 74	4
75 to 100	5
over 100	6 plus one for each additional 30 persons over 100
Column 1	2

(11) Except for motion picture theatres, the number of water closets required in Group A, Division 1 occupancies shall conform to Table 3.6.4.C.

Table 3.6.4.C.

Forming Part of Sentence 3.6.4.2.(11)

Number of Persons of Each Sex	Minimum Number of Water Closets	
	Male	Female
1 - 25	1	1
26 - 50	1	2
51 - 75	2	3
76 - 100	2	4
101 - 150	3	5
151 - 200	4	6
201 - 300	5	7
301 - 400	6	8
Over 400	7 plus 1 for each additional 200 males over 400	9 plus 1 for each additional 150 females over 400
Column 1	2	3

(12) For motion picture theatres, and Group A, Division 3 and 4 occupancies, the minimum number of water closets shall be as provided in Table 3.6.4.D.

Table 3.6.4.D.
Forming Part of Sentence 3.6.4.2.(12)

Number of Persons of Each Sex	Minimum Number of Water Closets for Each Sex
up to 50	1
51 to 150	2
151 to 250	3
251 to 375	4
376 to 500	5
over 500	6 plus 1 for each additional 150 persons over 500
Column 1	2

(13) The minimum number of water closets shall conform to Table 3.6.4.E. for,

- (a) the number of persons of each sex in dining rooms and restaurants,
- (b) the number of parking spaces in drive-in theatres, and
- (c) a parking lot that is part of a restaurant where patrons are intended to eat in vehicles parked thereon, and each 2 parking spaces required for this intention shall be considered equivalent to
 - (i) 2 persons of each sex where employees serve food on the parking lot, or
 - (ii) 1 person of each sex where food service by employees is not provided on the parking lot.

(14) The minimum number of water closets shall conform to Table 3.6.4.F. for the number of persons of each sex in establishments used primarily for the consumption of alcoholic beverages.

(15) Except as provided in Sentence (16), in every dining room, restaurant, cafeteria and alcoholic beverage establishment having more than 40 seats, separate facilities shall be provided for employees, and the minimum number of water closets and lavatories shall conform to Table 3.6.4.G.

Table 3.6.4.E.
Forming Part of Sentence 3.6.4.2.(13)

Number of Persons of Each Sex or One-Half the Number of Parking Spaces in Drive-in Theatres	Minimum Number of Water Closets for Each Sex
up to 20	1
21 to 70	2
71 to 105	3
106 to 135	4
136 to 165	5
166 to 195	6
196 to 225	7
226 to 275	8
276 to 325	9
326 to 375	10
376 to 425	11
over 425	12 plus 1 for each additional 50 persons of each sex over 425 or each additional 100 parking spaces over 850
Column 1	2

Table 3.6.4.F.
Forming Part of Sentence 3.6.4.2.(14)

Number of Persons of Each Sex	Minimum Number of Water Closets for Each Sex
up to 50	2
51 to 70	3
71 to 90	4
91 to 110	5
111 to 140	6
141 to 180	7
181 to 220	8
221 to 260	9
Over 260	10 plus 1 for each additional 40 persons of each sex over 260
Column 1	2

(16) Where the total number of employees does not exceed 5, the same room may be used by both sexes provided that the door to the room can be locked from the inside.

(17) In determining the number of employees in Sentences (15) and (16), this shall be the maximum number of employees who are normally present on the premises at one time and shall include only those who are present for more than 25 per cent of the working day.

Table 3.6.4.G.
Forming Part of Sentence 3.6.4.2.(15)

Number of Employees of Each Sex	Minimum Number of Fixtures for Each Sex	
	Water Closets	Lavatories
up to 9	1	1
10 to 24	2	2
25 to 49	3	3
50 to 74	4	4
75 to 100	5	5
over 100	6 plus 1 for each additional 30 employees over 100	6 plus 1 for each additional 30 employees over 100
Column 1	2	3

(18) The minimum number of water closets shall conform to Table 3.6.4.H. for Group A occupancies not shown in Tables 3.6.4.A., 3.6.4.C., 3.6.4.D., 3.6.4.E., 3.6.4.F., 3.6.4.G. or 3.6.4.I.

Table 3.6.4.H.
Forming Part of Sentence 3.6.4.2.(18)

Number of Persons of Each Sex	Minimum Number of Water Closets for Each Sex
up to 25	1
26 to 50	2
over 50	3 plus 1 for each additional 50 persons over 50
Column 1	2

(19) In a Group B, Division 1 occupancy the maximum number of persons per water closet shall be determined by the appropriate authority having jurisdiction.

(20) In a day care centre the maximum number of children per water closet and lavatory shall conform to Table 3.6.4.I. except that plumbing fixtures for children over the age of 9 years shall conform to the requirements for classrooms in Table 3.6.4.A.

Table 3.6.4.I.
Forming Part of Sentence 3.6.4.2.(20)

Age of Children	Maximum Number of Children per Water Closet and Lavatory
Under 2 2 to 5 6 to 9	10 without regard to number of each sex 15 without regard to number of each sex 15 for males 15 for females
Column 1	2

(21) For the public in Group E occupancies the maximum number of persons per water closet shall be 300 males or 150 females except that,

- (a) facilities provided for employees may be counted as part of those required for the occupancy when such facilities are made accessible to the public, and
- (b) where the sum of floor areas, excluding basements, is less than 600 m², not more than one water closet for each sex need be provided.

(22) Not more than 1 water closet to serve both sexes need be provided in

- (a) a Group D occupancy having an occupant load not exceeding 5 persons, or
- (b) a Group E or F occupancy,
 - (i) having an occupant load not exceeding 9 persons, or
 - ii) where the sum of the floor areas excluding basements does not exceed 300 m².

Glass around
showers or
bathtubs

3.6.4.3. Glass, other than safety glass, shall not be used for a shower or bathtub enclosure.

Privacy

3.6.4.4.(1) Every room containing sanitary facilities serving one sex only shall be enclosed by a full height door which shall be clearly marked to indicate the sex served.

(2) Rooms providing separate water closets for more than one male or female shall be designed so that the water closets and urinals are not visible when the doors to such rooms open onto a place where persons of the other sex work or pass.

SUBSECTION 3.6.5. HEALTH CARE FACILITY SYSTEMS

3.6.5.1. In anaesthetizing locations, electrical systems shall be designed, constructed, installed and tested in conformance with CSA Z32.1, "Code for Prevention of Explosions or Electrical Shock in Hospital Operating Rooms".

3.6.5.2. All medical gas piping systems shall be designed, constructed, installed and tested in conformance with CSA Z305.1, "Nonflammable Medical Gas Piping Systems".

SECTION 3.7 BARRIER-FREE DESIGN

SUBSECTION 3.7.1. GENERAL

3.7.1.1. The requirements of this Section apply to all buildings except

- (a) houses, including semi-detached, duplexes, triplexes, town houses, row houses and boarding houses,
- (b) buildings of Group F, Division 1 major occupancy, and
- (c) buildings which are not intended to be occupied on a daily or full time basis, including automatic telephone exchanges, pumphouses and substations.

Accessible
entrance

3.7.1.2. Every building in Article 3.7.1.1. shall have at least 1 entrance intended for general use by the public or the occupants designed in conformance with Article 3.7.3.3., opening to the outdoors at sidewalk level or to a ramp conforming to Article 3.7.3.4. leading to a sidewalk.

Barrier-free
access

3.7.1.3.(1) Except as permitted in Subsection 3.7.3., every barrier-free access shall provide an unobstructed width of at least 920 mm for the passage of wheelchairs.

(2) Floor surfaces along a barrier-free access shall have no opening that will permit the passage of a sphere larger than 13 mm diam.

(3) Except as provided in Article 3.7.3.5., controls for the operation of building services or safety devices, located in a barrier-free access and intended to be operated by the occupant, including manually actuated signalling boxes, electrical switches, thermostats and intercom switches, shall be accessible to a person in a wheelchair and shall be mounted at not more than 1.2 m above the floor.

(4) All portions of a barrier-free access shall be equipped to provide a level of illumination in accordance with Sentence 3.2.7.1.(1).

SUBSECTION 3.7.2. OCCUPANCY REQUIREMENTS

Areas requiring
barrier-free
access

3.7.2.1.(1) A barrier-free access shall be provided on the entrance storey and on each storey served by a passenger type elevator or other platform equipped passenger elevating device from the entrance described in Article 3.7.1.2.

- (a) into each suite, except for suites of residential occupancy that are in storeys other than the entrance storey and that have all entrance doors at floor levels that do not correspond to elevator stop levels,
- (b) into rooms or areas that serve the public or are designated for use by visitors, including areas in assembly occupancies with fixed seats, display areas and merchandising departments,
- (c) into rooms or areas for student use in assembly occupancies,
- (d) into general work areas, including office areas,
- (e) into general use or general service areas, including shared laundry areas in residential occupancies, recreational areas, cafeteria, lounge rooms, lunch rooms and infirmaries,
- (f) into patients' rooms and patients' washrooms,
- (g) into at least 1 passenger type elevator or elevating device conforming to Article 3.7.3.5.,
- (h) into washrooms described in Article 3.7.2.3.,

- (i) to any facility required by this Section to be designed to accommodate disabled persons, and
- (j) RESERVED
- (k) to service counters, refreshment stands, drinking fountains and checkout counters.

Wheelchair space
in seating areas

(2) The minimum number of spaces designated for wheelchair use in Clause 3.7.2.1.(1)(b) shall conform to Table 3.7.2.A.

Table 3.7.2.A.
Forming Part of Sentence 3.7.2.1.(2)

Number of Fixed Seats in Seating Area	Minimum Number of Spaces Required for Wheelchairs
up to 100	2
101 to 200	3
201 to 300	4
301 to 400	5
401 to 600	6
Over 600	Not less than 1 per cent of the seating capacity
Column 1	2

Access to
parking areas

3.7.2.2. A barrier-free access shall be provided from the entrance described in Article 3.7.1.2. to parking spaces on at least one parking level where a passenger elevator serves an indoor parking level.

Washrooms for
disabled persons

3.7.2.3.(1) Except as provided in Sentence (2), washrooms shall be designed to accommodate disabled persons in conformance with the appropriate requirements in Articles 3.7.3.6. to 3.7.3.9.

(2) Washrooms need not conform to the requirements in Sentence (1) provided

- (a) they are located on a floor area to which barrier-free access is not provided,
- (b) they are located within suites of residential occupancy, or
- (c) other washrooms designed to accommodate disabled persons are available in locations providing equivalent convenience.

SUBSECTION 3.7.3. DESIGN STANDARDS

Accessibility
signs

3.7.3.1.(1) Where a building is required to have an entrance to accommodate disabled persons, signs incorporating the international symbol of accessibility for disabled persons shall be installed where necessary to indicate the location of that entrance.

(2) Where a washroom, elevator or parking area is required to accommodate disabled persons, it shall be identified by a sign consisting of the international symbol of accessibility for disabled persons and such other graphic or written directions as are needed to indicate clearly the type of facility available.

Exterior walks

3.7.3.2.(1) Exterior walks that form part of a barrier-free access shall

- (a) have a slip-resistant, continuous and even surface,
- (b) be at least 1 100 mm in width, and
- (c) have a level area adjacent to the entrance doorway conforming to Clause 3.7.3.4.(1)(c).

Doors in a
barrier-free
access

3.7.3.3.(1) Every doorway that is located in a barrier-free access shall have, when the door is in the open position, a clear width of at least

- (a) 760 mm where the door is served by a corridor or space at least 1060 mm wide, and
- (b) 810 mm where the door is served by a corridor or space less than 1060 mm wide.

Doors in a
residential
suite

(2) Except where no bathroom within the suite is at the level of the suite entrance door to which barrier-free access is provided in accordance with Clause 3.7.2.1.(1)(a), the doorway to at least 1 bathroom and to each bedroom at the same level as such bathroom within a suite of residential occupancy shall have, when the door is in the open position, a clear width of at least

- (a) 760 mm where the door is served by a corridor or space at least 1060 mm wide, and
- (b) 810 mm where the door is served by a corridor or space less than 1060 mm wide.

(3) Thresholds for doorways in Sentences (1) and (2) shall not exceed 13 mm in height above the finished floor surface and shall be bevelled to facilitate the passage of wheelchairs.

Door closers

(4) Except for doors to dwelling units, door closers for doors in a barrier-free access shall be designed to permit

- (a) doors to open when a force of not more than 38 N is applied to the handles, push plates or latch-releasing devices for exterior doors and not more than 22 N for interior doors, and
- (b) interior doors to have a closing period of at least 5 s measured from the door in an open position of 70° to the doorway to a point 75 mm from the closed position measured from the leading edge of the latch side of the door.

Vestibules in a barrier-free access

(5) Vestibules located in a barrier-free access shall be arranged to allow the movement of wheelchairs between doors and shall

- (a) provide a distance between 2 doors in series of at least 1.2 m plus the width of any door that swings into the space in the path of travel from one door to another, and
- (b) have a clear space, beyond the latch side of each door, of at least 600 mm when the door swings into the vestibule and at least 300 mm when the door swings away from the vestibule.

Vision panels in doors

(6) Where a vision panel is provided in a door in a barrier-free access, such panel shall be at least 75 mm in width and be located so that

- (a) the bottom of the panel is not more than 900 mm above the finished floor, and
- (b) the edge of the panel closest to the latch is not more than 200 mm from the latch side of the door.

Ramps in a barrier-free access

3.7.3.4.(1) Ramps located in a barrier-free access shall

- (a) have a minimum width of 870 mm between handrails,
- (b) have a maximum gradient of 1 in 12,

- (c) have a level area of at least 1.5 m by 1.5 m at the top and bottom and at intermediate levels of a ramp leading to a door, so that the level area extends at least 600 mm beyond the latch side of the door opening, except that where the door opens away from the ramp, the area extending beyond the latch side of the door opening may be reduced to 300 mm,
- (d) have a level area at least 1.5 m long and at least the same width as the ramp
 - (i) at intervals of not more than 9 m along its length, and
 - (ii) where there is an abrupt change in the direction of the ramp,
- (e) be equipped with handrails and guards on both sides conforming to Articles 3.4.7.5. and 3.4.7.6., and
- (f) be provided with a curb at least 50 mm high on any side of the ramp where no solid enclosure or guard is provided.

(2) Floors or walks in a barrier-free access having a slope steeper than 1 in 20 shall be designed as ramps.

Elevators

3.7.3.5.(1) The passenger-type elevator in Article 3.7.2.1. shall conform to Appendix E of CSA B44, "Safety Code for Elevators, Dumbwaiters, Escalators and Moving Walks".

Other elevating devices

(2) The passenger-type elevating device in Article 3.7.2.1. shall conform to CAN3-B355, "Safety Code for Elevating Devices for the Handicapped".

Water closet stalls for disabled persons

3.7.3.6.(1) Where a washroom is required by Article 3.7.2.3. to accommodate disabled persons, at least 1 water closet stall or enclosure shall

- (a) be at least 1.5 m in width by 1.5 m in depth,
- (b) be equipped with a door which shall
 - (i) be capable of being locked from the inside with a locking mechanism that is operable by one hand,
 - (ii) provide, when the door is in an open position, a clear opening of at least 760 mm where the door is served by a

corridor or space at least 1060 mm wide, and a clear opening of at least 810 mm where the door is served by a corridor or space less than 1060 mm wide,

- (iii) swing outward, unless sufficient room is provided within the stall or enclosure to permit the door to be closed without interfering with the wheelchair,
 - (iv) be provided with a door having spring-type or gravity hinges so that the door closes automatically,
 - (v) be provided with a door pull on the outside, near the latch side of the door, and
 - (vi) be aligned with the clear manoeuvring space adjacent to the water closet,
- (c) have a water closet located so that its centreline is not less than 460 mm and not more than 480 mm from an adjacent side wall on 1 side,
- (d) be equipped with grab bars which shall
- (i) be at least 760 mm in length and mounted at a 30° to 50° angle sloping upwards, away from the water closet with the lower end of the bar mounted 230 mm above the toilet seat and 50 mm in front of the toilet bowl, or alternatively, be L-shaped with 760 mm long horizontal and vertical components mounted with the horizontal component 230 mm above the toilet seat and the vertical component 150 mm in front of the toilet bowl,
 - (ii) be at least 600 mm in length mounted horizontally on the wall behind the water closet from 840 mm to 920 mm above the floor and, where the water closet has a water tank, be mounted 150 mm above the tank,
 - (iii) RESERVED,

- (iv) be installed to resist a load of at least 1.3 kN applied vertically or horizontally,
- (v) be not less than 30 mm and not more than 40 mm in diameter, and
- (vi) have a clearance of 35 mm to 45 mm from the wall,
- (e) be equipped with a coat hook mounted not more than 1.2 m above the floor on a side wall and projecting not more than 25 mm from the wall, and
- (f) have a clearance of at least 1.7 m between the outside of the stall face and the face of an in-swinging washroom door and 1.4 m between the outside of the stall face and any wall, wall-mounted fixture or other obstruction.

Water closets
for disabled
persons

3.7.3.7.(1) Water closets for disabled persons shall

- (a) be equipped with seats located at not less than 407 mm and not more than 445 mm above the floor level,
- (b) be equipped with hand-operated flushing controls that are easily accessible to a wheelchair user,
- (c) be equipped with a back support such as a seat lid, and
- (d) not have a spring-activated seat.

Lavatories for
disabled persons

3.7.3.8.(1) Where a washroom is required to accommodate disabled persons, it shall

- (a) be equipped with a lavatory which shall
 - (i) be mounted so that the distance between the centreline of the fixture and the side wall is at least 460 mm,
 - (ii) have a clearance of at least 710 mm beneath the bottom of the lavatory to a point at least 260 mm in from the front,

- (iii) have insulated waste outlet and hot water supply pipes to prevent burns or have water supply temperature limited to a maximum of 43°C,
- (iv) have faucet handles of the lever type that are not spring-loaded, and are located so that the distance from the centreline of the faucet to the edge of the basin or, where the basin is mounted in a vanity, to the front edge of the vanity, is not more than 485 mm,
- (v) have no shelves or other projections located above it so as to create a hazard, and
- (vi) be mounted so that the top of the lavatory or, where the lavatory is in a vanity, the top of the vanity is not more than 840 mm above the finished floor,

Soap and towel dispensers

- (b) have soap and towel dispensers that are
 - (i) located to be accessible to persons in wheelchairs and so that the dispensing height is not more than 1.2 m above the floor, and
 - (ii) operable with a single hand, and
- (c) have dispensing or hand-operated washroom accessories, except those located in toilet stalls or described in Clauses (a) or (b), mounted so that the dispensing height is between 900 mm and 1 200 mm above the floor.

Special washrooms

3.7.3.9.(1) Where a special washroom is provided primarily for the use of disabled persons of both sexes in lieu of facilities for disabled persons in washrooms used by the general public, such washrooms shall

- (a) be equipped with doors capable of being locked from the inside with one hand and provided with a means of emergency release from the outside,
- (b) be provided with a lavatory conforming to Article 3.7.3.8.,
- (c) be equipped with a water closet conforming to Article 3.7.3.7.,

- (d) be equipped with grab bars conforming to Clause 3.7.3.6.(1)(d),
- (e) RESERVED,
- (f) have clearances for fixtures and accessories conforming to the fixture clearances described in Articles 3.7.3.6. to 3.7.3.8.;
- (g) have a doorway conforming to Article 3.7.3.3.,
- (h) provide an unobstructed circular turning area at least 1.5 m in diameter, and
- (i) be equipped with a coat hook not more than 1.2 m above the floor in a location accessible to a wheelchair user.

Shower stalls
for disabled
persons

3.7.3.10.(1) Where individual shower stalls are provided in buildings of assembly occupancy, at least 1 shower stall shall be provided for disabled persons which shall

- (a) be at least 1 500 mm wide by 900 mm deep with an entrance at least 1 500 mm wide,
- (b) have a clear floor area in front of the shower cubicle minimum at least 1 050 mm wide by 1 050 mm deep,
- (c) have controls that
 - (i) conform to the requirements of Subclause 3.7.3.8.(1)(iv), and
 - (ii) are located so as to be useable from the seated position,
- (d) to permit lateral transfer from a wheelchair, be provided with a portable or wall-mounted folding seat,
 - (i) located on a side wall, mounted 480 mm above the finished shower floor,
 - (ii) 38 mm to 62 mm less than the shower compartment depth in width by 430 mm to 530 mm in depth,
 - (iii) capable of carrying a minimum load of 1.33 kN, and

- (iv) manufactured so as to be impervious to water and of such a design to be easily cleaned,
- (e) have a shower fixture, capable of being hand-held or used by being placed on a fixed vertical track, in any stationary position from 965 mm to 1 500 mm above the finished shower floor, and located so as to be within reach of the seated position,
- (f) have a water supply that is controlled by a pressure-equalizing valve or by an automatic thermostatically-controlled valve,
- (g) have thresholds that do not exceed 13 mm in height and that are bevelled,
- (h) not have shower doors, and
- (i) have grab bars that
 - (i) are at least 750 mm by 900 mm by 90° mounted horizontally with the centreline of the grab bar 760 mm to 810 mm above the shower floor, with the shorter length located on the same side wall as the shower seat, and
 - (ii) conform to Subclauses 3.7.3.6.(d)(iv), (v) and (vi).

SECTION 3.8 SIGNS

SUBSECTION 3.8.1. SCOPE

3.8.1.1. Except as provided otherwise in Article 3.8.1.2. this Section shall apply to the erection of all signs.

3.8.1.2.(1) The following signs shall not be subject to the provisions of this Section,

- (a) Signs for regulating traffic or similar devices, legal notices or warnings at railroad crossings;
- (b) Signs in display windows including writing, representation, painting or lettering directly on the surface of any window or door, or other signs not affixed to the building interior;

- (c) Small signs displayed for the direction of the public including signs which identify rest rooms, freight entrances and such other similar directional signs;
- (d) Signs painted directly on a building; and
- (e) Incidental signs or other signs subject to municipal approval.

SUBSECTION 3.8.2. ALTERATIONS

3.8.2.1. The changing of movable parts of signs that are designed for changes, or the repainting of display matter shall not be deemed to be alterations.

SUBSECTION 3.8.3. STRUCTURAL REQUIREMENTS

3.8.3.1. Except as provided herein, all sign structures shall be designed in accordance with Part 4.

3.8.3.2.(1) A sign structure shall be designed by an architect or professional engineer where it is,

- (a) a ground sign which exceeds 7.5 m in height above the adjacent finished ground,
- (b) a projecting sign which weighs more than 115 kg, or
- (c) any one face of a roof sign which exceeds 10 m²

(2) A projecting sign shall not be attached or fastened in any manner to a parapet wall unless designed by an architect or professional engineer.

SUBSECTION 3.8.4. PLASTIC SIGN FACING MATERIALS

3.8.4.1.(1) Plastic materials used in the construction of sign faces shall,

- (a) have an average burning rate not greater than 65 mm/min in sheets 1.5 mm thick when tested in accordance with ASTM D635, "Rate of Burning and/or Extent and Time of Burning of Self-supporting Plastics in a Horizontal Position",
- (b) have an average burning rate not greater than 140 mm/min when tested in accordance with ASTM D568, "Rate of Burning and/or Extent and

Time of Burning of Flexible Plastics in a Vertical Position", and

- (c) have a measurement of material thickness in accordance with Method B-Machinists' Micrometer Without Ratchet of ASTM D374, "Thickness of Solid Electrical Insulation".

(2) Except as provided in Sentence (3), where the exterior cladding of a wall is required to be noncombustible, a plastic sign face or a group of contiguous plastic sign faces may be placed over such cladding provided each such sign face or group of contiguous sign faces,

- (a) does not exceed 30 per cent of the wall area of the storey on which it is installed,
- (b) does not exceed 15 m² in area or 1.2 m in height at each storey, and
- (c) when located above the first storey, is vertically separated from other plastic sign faces by 1.2 m of noncombustible construction unless separated by a horizontal noncombustible projection such as a canopy, extending the full width of, and projecting at least 900 mm beyond the exterior sign face.

(3) Where a plastic exterior sign is mounted as a face on a metal sign box that is at least 200 mm in depth, the requirements of Sentence (2) need not apply provided the sign box is mounted on a noncombustible exterior wall.

(4) Notwithstanding the requirements of Sentence (5), the plastic portion of an interior sign placed over or forming part of an interior wall surface in corridors, covered or enclosed walkways at or above grade in buildings shall,

- (a) not exceed 15 per cent of the wall area in, or over which it may be installed,
- (b) be supported by a device that will not detrimentally affect the fire-resistance rating of the interior wall to which it is attached or of which it may form a part, and encase the edges of the plastic sign face in metal,
- (c) not be positioned or sized in such a manner that it is less than 600 mm from the vertical line separating two adjacent premises,

- (d) be placed so that there is at least 600 mm vertical separation of noncombustible material between the top of the plastic sign surface and the ceiling surface,
- (e) be permitted to have an increase of 100 per cent in area required in Clause (a) and a decrease of 50 per cent of the separation distances required in Clauses (c) and (d) if the area is sprinklered, and
- (f) not have a flame-spreading rating above 250.

(5) Signs in exits and underground walkways shall comply with the appropriate flame-spread requirements of Sentences 3.4.4.1.(1) and 3.2.3.16.(5).

SUBSECTION 3.8.5. LOCATION RESTRICTIONS

3.8.5.1. No sign shall be located so as to obstruct openings required for light and ventilation, any required means of egress or required access for fire fighting in accordance with Sentence 3.2.5.1.(8).

3.8.5.2.(1) No exterior sign shall be erected overhanging a sidewalk or other pedestrian walkway unless the vertical distance, measured from the bottom of the overhanging portion of the sign to the surface of the sidewalk, is at least 2.4 m.

(2) Except as provided hereinafter, no sign face shall be erected within 600 mm of the vehicular travelled portion of a private lane or roadway, or of a motor vehicle parking area unless the minimum vertical distance between grade and the bottom of the overhanging sign face is at least 4.25 m.

(3) Where the height of all vehicles using any private road or parking area is permanently restricted, the vertical distance in Sentence (2) may be reduced to the amount of the actual height restriction, for as long as the said height restriction is in existence on the premises.

3.8.5.3. No sign shall be supported by an existing building, parapet wall, or other structure, or any part thereof, unless the building or structure is adequate to support, without reducing the safety factors provided, all loads to which it may be subjected, including those loads resultant from or caused by the erection of the sign such as wind and snow loads, and is fully capable of safely transferring said loads through its structural members to soil having adequate load-carrying or load-resisting capacity.

3.8.5.4. Materials subjected to wind forces used in the construction of signs shall be of sufficient strength and shall be installed to withstand a design external pressure or suction due to wind.

3.8.5.5. Materials subjected to thermal forces shall be installed so that their expansion and contraction over the temperature ranges to which the materials are likely to be subjected will not dislodge the materials from their assigned positions.

SECTION 3.9 PORTABLE CLASSROOMS

SUBSECTION 3.9.1. GENERAL

3.9.1.1. A single portable classroom shall not exceed 100 m² in building area, or 1 storey in building height.

3.9.1.2. Where the horizontal distance between portable classrooms is less than 6 m they shall be considered as a single building of a size equal to the aggregate area of the portable classrooms and the requirements of Subsection 3.2.2. for a building of such size shall apply.

SUBSECTION 3.9.2. MEANS OF EGRESS

3.9.2.1. Except where fuel-fired heating appliances are enclosed with a fire separation having a fire-resistance rating of at least 3/4 h, each portable classroom shall be provided with not less than two exit doors placed as remote from each other as practicable, and which open directly to the outdoors.

3.9.2.2.(1) All exit doors shall open in the direction of exit travel, and

- (a) shall not be equipped with hardware that will,
 - (i) permit the door to be locked against egress, or
 - (ii) prevent the door from being opened with one hand, and
- (b) shall not be equipped with night latches, flush bolts, draw bolts or similar locking devices.

SUBSECTION 3.9.3. INTERIOR FINISH

3.9.3.1. No interior finish material used on a wall or ceiling of a portable classroom shall have a flame-spread rating greater than 150.

SUBSECTION 3.9.4. HEATING

3.9.4.1. Heating systems and equipment shall be designed and installed in accordance with Section 6.2.

3.9.4.2.(1) A fuel-fired appliance is permitted without fire separations in a portable classroom provided,

(a) there is not more than one appliance per classroom, and

(b) the appliance is at least 4.5 m from an exit.

3.9.4.3.(1) Notwithstanding the provisions of Article 3.9.4.2., fuel-fired appliances shall be enclosed by a fire separation having

(a) $3/4$ h fire-resistance rating where the horizontal distance between portable classrooms is less than 6 m but greater than 1.5 m, and

(b) $1\ 1/2$ h fire-resistance rating where the horizontal distance between portable classrooms is 1.5 m or less.

SUBSECTION 3.9.5. PROVISIONS FOR FIRE FIGHTING

3.9.5.1. A fire extinguisher, in accordance with Article 3.2.5.6., shall be installed in a portable classroom.

SUBSECTION 3.9.6. FIRE ALARM SYSTEM

3.9.6.1. Where the horizontal distance between a portable classroom and a main school building on the site is less than 12 m, the fire alarm system in the main school building shall be extended into the portable classroom.

3.9.6.2.(1) A fire alarm system installed in accordance with the requirements of Subsection 3.2.4. shall be provided where,

- (a) there are four or more portable classrooms in a group and the horizontal distance between portable classrooms is less than 6 m, or
- (b) there are fewer than four portable classrooms in a group and the horizontal distance between portable classrooms is less than 2 m,

whether or not there is a main school building on the site.

(2) For the purposes of determining the fire alarm requirements, the group of portable classrooms shall be considered a separate building.

SUBSECTION 3.9.7. SEPARATION FROM MAIN BUILDINGS

3.9.7.1.(1) Where the horizontal distance between a portable classroom and a main school building on the site is less than 12 m but greater than 3 m, there shall be a $\frac{3}{4}$ h fire separation constructed between the portable classroom and the main building.

(2) Where the horizontal distance between a portable classroom and a main school building on the site is 3 m or less, there shall be a $1\frac{1}{2}$ h fire separation constructed between the portable classroom and the main building.

(3) Where a fire separation is required by Sentences (1) and (2), it may be formed by a wall of the main school building or a wall of the portable classroom, or combination thereof, provided such walls have the required fire-resistance rating and all openings, such as doors and windows, are protected in accordance with Subsection 3.1.6.

3.9.7.2. Spatial separation as shown in Subsection 3.2.3. may be used in lieu of the requirements of Article 3.9.7.1.

SECTION 3.10 SELF-SERVICE STORAGE BUILDINGS

SUBSECTION 3.10.1. SCOPE

3.10.1.1. Except as provided in this Section, the requirements in the Code apply to self-service storage buildings.

SUBSECTION 3.10.2. REQUIREMENTS FOR ALL BUILDINGS

3.10.2.1.(1) A self-service storage building

- (a) shall comply with the requirements for a Group F, Division 2 major occupancy, and

- (b) shall not contain a Group F, Division 1 occupancy.

3.10.2.2. The requirements based on occupant load shall not apply.

3.10.2.3.(1) Except as provided in Sentence (2) and Sentence 3.10.4.2.(1), the requirements in Subsections 3.2.1. and 3.2.2. shall apply.

(2) The first storey shall be subdivided into areas not exceeding 500 m^2 by a masonry or reinforced concrete fire separation having a fire-resistance rating of at least 1 h, or it shall be sprinklered.

3.10.2.4.(1) Except as provided in Sentences (2) to (12), the requirements in Section 3.3 shall apply.

(2) A corridor need not be constructed as a public corridor where the travel distance, measured from inside the rental space to the nearest exit, does not exceed 15 m provided that the corridor walls

- (a) are of noncombustible construction,
- (b) have no openings other than doors and the doors are of solid construction, and
- (c) are continuous from the floor to the underside of the floor above, the ceiling or the roof.

(3) Where the building is sprinklered, doors in a public corridor do not require to be equipped with self-closing devices and latches provided that the travel distance is measured from inside the rental space to the nearest exit.

(4) Egress doors from a rental space are not required to swing in the direction of exit travel or swing on a vertical axis provided

- (a) the area of the rental space does not exceed 50 m^2 , and
- (b) the distance of travel within the rental space does not exceed 10 m.

(5) Where egress doors from a rental space open onto a corridor and swing in the direction of exit travel, the corridor shall be at least 1 500 mm in width, and the doors shall not be wider than 914 mm.

(6) Where egress doors from a rental space open onto a corridor and do not swing in the direction of exit

travel, the corridor shall be at least 1 100 mm in width.

(7) Dead-end corridors are not permitted.

(8) Corridors shall be provided with

- (a) natural lighting which shall be uniformly distributed and be at least 4 per cent of the corridor area, or
- (b) emergency lighting, conforming to Sentences 3.2.7.3.(2) and (3), which shall provide average levels of illumination of at least 10 lx at floor level.

(9) Not more than two dwelling units shall be contained within one of the buildings on the property.

(10) Dwelling units shall be separated from the remainder of the building by a fire separation having a fire-resistance rating of not less than 2 h.

(11) A fire separation is not required between a dwelling unit and an office where the office does not exceed 50 m² in area.

(12) The fire separations required in Sentence 3.3.1.1.(1) need not be provided between individual rental spaces.

3.10.2.5.(1) Except as provided in Sentences (2) and (3), the requirements in Section 3.4 shall apply.

(2) The clear width of an exit stair shall be at least 1 100 mm.

(3) Exit doors from rental spaces are not required to swing on a vertical axis provided,

- (a) the area of the rental space does not exceed 50 m², and
- (b) the travel distance within the rental space does not exceed 10 m.

3.10.2.6.(1) Except as provided in Sentence (2), the requirements in Section 3.5 shall apply.

(2) Except where located in and serving only the dwelling units, a fuel-fired appliance shall be located in a service room separated from the remainder of the building by a fire separation having a fire-resistance rating of not less than 1 h.

3.10.2.7.(1) Except as provided in Sentence (2), the requirements in Subsection 3.6.4. shall apply.

(2) Except as permitted in Sentences 3.6.4.1.(2) and (3), two washrooms, each containing a water closet and a lavatory, shall be provided within one of the buildings on the property.

**SUBSECTION 3.10.3. ADDITIONAL REQUIREMENTS FOR
BUILDINGS CONTAINING MORE THAN
1 STOREY**

3.10.3.1. The requirements in this Subsection apply to all buildings except a 1 storey building which does not contain a basement or mezzanine.

3.10.3.2.(1) Except as provided in Sentence (2), the requirements in Subsection 3.2.3. shall apply.

(2) The distance between buildings shall be at least 9 m.

3.10.3.3.(1) Except as provided in Sentences (2) and (3), the requirements in Subsection 3.2.4. shall apply.

(2) A fire alarm system shall be installed.

(3) Within the first storey, manually actuated signalling boxes are required only in corridors.

3.10.3.4.(1) Except as provided in Sentences (2) to (4), the requirements in Subsection 3.2.5. shall apply.

(2) Access routes for fire department vehicles shall be provided and shall be not less than 9 m wide.

(3) Hydrants shall be located in the access routes required in Sentence (2) so that,

(a) for a building provided with a fire department connection for a standpipe and hose system or a sprinkler system,

(i) a fire department pumper vehicle can be located adjacent to a hydrant, and

(ii) the unobstructed path of travel for the firefighter from the vehicle to the fire department connection is not more than 45 m, and

(b) for a building which is not sprinklered, a fire department pumper vehicle can be located in the access route so that the unobstructed path of travel for the firefighter is not more than

(i) 45 m from the hydrant to the vehicle, and

(ii) 45 m from the vehicle to every opening in the building.

(4) Hose stations are not required in the first storey.

SUBSECTION 3.10.4. ADDITIONAL REQUIREMENTS FOR 1 STOREY BUILDINGS

3.10.4.1. The requirements in this Subsection apply to 1 storey buildings which do not contain a basement or mezzanine.

3.10.4.2.(1) For the purposes of Subsection 3.2.2., building area means,

(a) the building area of each building,

(b) the total of the building areas of all buildings as a group, or

(c) the total of the building areas of any number or group of buildings.

3.10.4.3.(1) Except as provided in Sentences (2) to (4), the requirements in Subsection 3.2.3. shall apply.

(2) Where the building area conforms to Clause 3.10.4.2.(1)(b), the limiting distance requirements shall not apply between individual buildings.

(3) Where the building area conforms to Clause 3.10.4.2.(1)(c),

(a) the limiting distance requirements shall apply between each group of buildings, but not between individual buildings within a group, and

(b) the distance between each group of buildings shall be not less than 9 m.

(4) The distance between individual buildings within a group shall be not less than 6 m.

3.10.4.4.(1) Except as provided in Sentence (2), the requirements in Subsection 3.2.4. shall not apply.

(2) The requirements for smoke alarms in Article 3.2.4.15. shall apply to a dwelling unit.

3.10.4.5.(1) Except as provided in Sentences (2) to (6), the requirements in Subsection 3.2.5. shall not apply.

(2) Access routes for fire department vehicles shall be provided and shall be not less than 9 m wide.

(3) Hydrants shall be located in the access routes required in Sentence (2) so that the locations conform to Sentence 3.10.3.4.(3).

(4) The access routes required in Sentence (2) shall conform to the requirements in Sentence 3.2.5.2.(6).

(5) An adequate water supply for firefighting shall be provided for every building.

(6) Where a sprinkler system is installed, the system shall conform to the requirements in Articles 3.2.5.5. and 3.2.5.7.

PART 4

STRUCTURAL DESIGN

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PART 4 STRUCTURAL DESIGN

SECTION 4.1 STRUCTURAL LOADS AND PROCEDURES

SUBSECTION 4.1.1. GENERAL

4.1.1.1. The scope of this Part shall be as described in Section 2.1.

4.1.1.2.(1) RESERVED.

(2) RESERVED.

Design Requirements

Minimum safety,
performance
and integrity

4.1.1.3.(1) Buildings and their structural members including formwork and falsework shall be designed to have sufficient structural capacity and structural integrity to resist safely and effectively all loads and effects of loads and influences that may reasonably be expected, having regard to the expected service life of buildings, and shall in any case satisfy the requirements of this Section.

Loads during
construction

(2) All permanent and temporary structural members, including formwork and falsework of a building, shall be protected against loads exceeding the specified loads during the construction period except when, as verified by analysis or test, temporary overloading of a structural member would result in no impairment of that member or any other member.

Falsework

(3) Falsework shall be designed in conformance with CSA S269.1, "Falsework for Construction Purposes."

(4) Precautions shall be taken during all stages of construction to ensure that the building is not damaged or distorted due to loads applied during construction.

Design basis

4.1.1.4.(1) Buildings and their structural members shall be designed by one of the following methods,

(a) standard design procedures and practices provided by this Part and any standards and specifications referred to therein, except in cases of conflict the provisions of the building code shall govern; or

(b) one of the following three bases of design,

(i) analysis based on generally established theory,

(ii) evaluation of a given full-scale structure or a prototype by a loading test,

(iii) studies of model analogues,

provided the design is carried out by a person qualified in the specific method applied and provided the design ensures a level of safety and performance at least equivalent to that provided for or implicit in design carried out by the methods referred to in Clause (a).

Deflections

4.1.1.5.(1) In proportioning structural members to limit deflection, consideration shall be given to

- (a) the intended use of the building or member,
- (b) limiting damage to non-structural members and materials whose physical properties are known at the time of the design, and
- (c) limiting damage to the structure itself.

Sway effects

(2) Sway effects produced by vertical loads acting on the structure in its displaced configuration shall be taken into account in the design of buildings and their structural members.

(3) Deflections listed in Sentence (1) shall be taken into account in all structures and structural members made of material susceptible to deflections, deformations or changes in load distribution due to creep, shrinkage or other effects in the materials of which they are composed.

Lateral deflection of buildings due to wind

(4) The lateral deflection of buildings due to design wind and gravity loads shall be checked to ensure that nonstructural elements whose nature is known at the time the structural design is carried out will not be damaged.

(5) Except as provided in Sentence (6), the total drift per storey under specified wind and gravity loads shall not exceed 1/500 of the storey height unless other drift limits are specified in the design standards referenced in Section 4.3.

(6) The deflection limits required in Sentence (5) do not apply to industrial buildings or sheds if it is known by experience that greater movement will have no significantly adverse effect on the strength and function of the building.

Vibrations of
floors

4.1.1.6.(1) Floor systems susceptible to vibrations shall be designed so that there will be no significantly adverse effects on the intended occupancy of the building from vibrations.

Lateral
vibrations of
tall buildings

(2) Unusually flexible buildings and buildings whose ratio of height to minimum effective width exceeds 4 to 1 shall be designed so that there will be no significantly adverse effects on the intended occupancy of the building from vibrations under dynamic wind load.

Stability

4.1.1.7. Provision shall be made to ensure adequate stability of a structure as a whole, and adequate lateral, torsional and local stability of all structural parts.

4.1.1.8. RESERVED.

4.1.1.9. Farm buildings shall be designed and constructed in conformance with Subsection 1.2.1., Definitions, and Part 2, Structural Design, of the Canadian Farm Building Code 1983.

SUBSECTION 4.1.2. SPECIFIED LOADS AND EFFECTS

Loads

4.1.2.1.(1) Except as provided for in Article 4.1.2.2., the following specified loads, forces and effects shall be considered in the design of a building and its structural members and connections

D --dead loads as provided for in Subsection 4.1.5.

L --live load due to intended use and occupancy (includes vertical loads due to cranes); snow, ice and rain; earth and hydrostatic pressure; horizontal components of static or inertia forces.

Q --live load to wind or earthquake, whichever produces the more unfavourable effect.

T --loads due to contraction or expansion caused by temperature changes, shrinkage, moisture changes, creep in component materials, movement due to differential settlement or combination thereof.

(2) Minimum specified values of these loads, as set forth in Subsections 4.1.5. to 4.1.10., shall be increased to account for dynamic effects where applicable.

Loads not
listed

4.1.2.2.(1) Where a building or structural member can be expected to be subjected to loads, forces or other effects not listed in Article 4.1.2.1., such effects shall be taken into account in the design based on the most appropriate information available.

(2) If it can be shown by engineering principles, or if it is known from experience, that neglect of some or all of the effects due to T do not affect the structural safety and serviceability, they need not be considered in the calculations.

Structural
design

4.1.2.3. Structural design shall be carried out in accordance with Subsection 4.1.3., Working Stress Design or Subsection 4.1.4., Limit States Design.

SUBSECTION 4.1.3. WORKING STRESS DESIGN

Load
combinations

4.1.3.1. In designing buildings and their structural members, all of the loads listed in Article 4.1.2.1. shall be considered to act in the following combinations, whichever combination produces the most unfavourable effects in the building, foundation or structural member concerned, when appropriately reduced according to Article 4.1.3.2.:

- (a) D
- (b) D + L
- (c) D + Q
- (d) D + T
- (e) D + L + Q
- (f) D + L + T
- (g) D + Q + T
- (h) D + L + Q + T

Load
combination
factors

4.1.3.2.(1) The total of the combined load effects may be multiplied by the following load combination factors:

- (a) 1.0 for the combinations in Clauses 4.1.3.1.(1)(a) to (d),
- (b) 0.75 for the combinations in Clauses 4.1.3.1.(1)(e) to (g), and
- (c) 0.66 for the combination in Clause 4.1.3.1.(1)(h).

Stress
reversal

4.1.3.3. When loads other than D counteract D in a structural member or joint, special caution shall be exercised by the designer to ensure adequate safety for possible stress reversal.

Overturning
and sliding

4.1.3.4.(1) A building shall be proportioned to resist an overturning moment and sliding force of not less than twice that due to the loads acting on the structure when the structure is considered as an entire unit acting on or anchored to its bearing stratum or supporting structure.

(2) The resistance to overturning shall be calculated as the sum of the stabilizing moment of the dead load only, plus the ultimate resistance of any anchoring devices.

SUBSECTION 4.1.4. LIMIT STATES DESIGN

Terms

4.1.4.1.(1) In this Subsection, the term

- (a) limit states means those conditions of a building structure in which the building ceases to fulfil the function for which it was designed,
- (b) specified loads (**D**, **L**, **Q** and **T**) mean those loads defined in Article 4.1.2.1. and given in this Section,
- (c) load factor, α , means a factor in Sentence 4.1.4.2.(4) applied to a specified load which, for the limit states under consideration, takes into account the variability of the loads and load patterns and analysis of their effects,
- (d) factored load means the product of a specified load and its load factor,
- (e) load combination factor, ψ , means a factor in Sentences 4.1.4.2.(5) and (6) applied to the factored loads other than dead load to take into account the reduced probability of a number of loads from different sources acting simultaneously,
- (f) importance factor, γ , means a factor in Sentence 4.1.4.2.(7) applied to the factored loads other than dead load to take into account the consequences of collapse as related to the use and occupancy of the building
- (g) resistance, **R**, of a member, connection or structure is based on the dimensions and on the specified properties of the structural materials,

- (h) resistance factor, ϕ , means a factor applied to a specified material property or to the resistance of a member, connection or structure which for the limit state under consideration takes into account the variability of dimensions and material properties, workmanship, type of failure and uncertainty in the prediction of resistance, and
- (i) factored resistance means the product of resistance and the applicable resistance factor.

Safety check for strength and stability

4.1.4.2.(1) A building and its structural components shall be designed to have sufficient strength and stability so that the factored resistance is greater than or equal to the effect of factored loads, as required in Sentence (3).

(2) In cases of overturning, uplift and sliding, anchorage is required if the effect of loads tending to cause overturning, uplift or sliding, multiplied by load factors greater than 1.0 given in Sentence (4), is greater than the stabilizing effect of dead load multiplied by a load factor of 0.85 as given in Sentence (4).

Effect of factored loads

(3) The effect of factored loads is the structural effect due to the specified loads multiplied by load factors, α , in Sentence (4), a load combination factor, ψ , in Sentences (5) and (6) and an importance factor, γ , in Sentence (7), and the factored load combinations shall be taken as

$$\alpha_D D + \gamma \psi [\alpha_L L + \alpha_Q Q + \alpha_T T]$$

Load factors

(4) The load factors, α , shall be equal to

- (a) $\alpha_D = 1.25$, except that when the dead load resists overturning, uplift or reversal of load effect, $\alpha_D = 0.85$,
- (b) $\alpha_L = 1.5$,
- (c) $\alpha_Q = 1.5$, and
- (d) $\alpha_T = 1.25$.

Load combination factor

(5) The load combination factor, ψ , shall be equal to

- (a) 1.0 when only 1 of the loads L, Q and T in Sentence 4.1.2.1.(1) acts,
- (b) 0.70 when 2 of the loads L, Q and T in Sentence 4.1.2.1.(1) act, and

(c) 0.60 when all of the loads L, Q and T in Sentence 4.1.2.1.(1) act.

(6) The most unfavourable effect shall be determined by considering the loads L, Q and T in Sentence 4.1.2.1.(1) acting alone with $\psi = 1.0$ or in combination with $\psi = 0.70$ or 0.60.

Importance
factor

(7) The importance factor, γ , shall be not less than 1.0 for all buildings, except that for buildings where it can be shown that collapse is not likely to cause injury or other serious consequences, it shall be not less than 0.8.

Serviceability
and fatigue

4.1.4.3.(1) A building and its structural components shall be checked for serviceability limit states as defined in Clause 4.1.4.1.(1)(a) and fatigue under the effect of the specified loads as required in the standards described in Section 4.3.

(2) Where more than 1 load contributes to the stress in a member, the combination of loads shall be assumed to be

$$D + \psi[L + Q + T]$$

where ψ is in conformance with Sentences 4.1.4.2.(5) and (6).

SUBSECTION 4.1.5. DEAD LOADS

Dead loads

4.1.5.1.(1) The specified dead load for a structural member consists of

- (a) the weight of the member itself,
- (b) the weight of all materials of construction incorporated into the building to be supported permanently by the member,
- (c) the weight of partitions,
- (d) the weight of permanent equipment, and
- (e) forces due to prestressing.

Non-permanent
partitions

(2) Except as provided in Sentence (5), in areas of a building where partitions other than permanent partitions are shown on the drawings, or where partitions might be added in the future, allowance shall be made for the weight of such partitions.

(3) The partition weight allowance shall be determined from the actual or anticipated weight of

the partitions placed in any probable position, but shall be not less than 1 kPa over the area of floor being considered.

(4) Partition loads used in design shall be shown on the drawings in sufficient detail to enable the loads due to materials of construction incorporated in the building to be determined.

(5) In cases where the dead load is counteractive, the load allowances as provided in Sentences (2) and (3) shall not be included in the design calculations.

SUBSECTION 4.1.6. LIVE LOADS DUE TO USE AND OCCUPANCY

Loads due to
use of floors
and roofs

4.1.6.1. The specified live load on an area of floor or roof depends on the intended use and occupancy, and shall not be less than the uniformly distributed load patterns in Article 4.1.6.3., the loads resulting from the intended use or the concentrated loads in Article 4.1.6.4., whichever produces the most critical effect.

Uses not
stipulated

4.1.6.2.(1) Where the use of an area of floor or roof is not provided for in Article 4.1.6.3., the specified live loads due to the use and occupancy of the area shall be determined from an analysis of the loads resulting from

- (a) the weight of the probable assembly of persons,
- (b) the weight of the probable accumulation of equipment and furnishings, and
- (c) the weight of the probable storage of materials.

Full and
partial loads

4.1.6.3.(1) The uniformly distributed load shall be not less than the values listed in Table 4.1.6.A., reduced as may be provided for in Sentences (8) or (9), applied uniformly over the entire area, or on any portions of the area, whichever produces the most critical effects in the members concerned.

Table 4.1.6.A.
Forming Part of Sentence 4.1.6.3.(1)

Use of Area of Floor or Roof	Minimum Specified Load kPa
Assembly Areas (a) Except for those areas listed under (b) and (c), assembly areas with or without fixed seats including Arenas Auditoria Churches Dance floors Dining areas ⁽⁴⁾ Foyers and entrance halls Grandstands, reviewing stands and bleachers Gymnasia Museums Promenades Rinks Stadia Stages <u>Theatres</u> and other areas with similar uses	4.8
(b) Assembly areas with fixed seats that have backs over at least 80 per cent of the assembly area for the following uses: Churches Courtrooms Lecture halls <u>Theatres</u>	2.4
(c) Classrooms with or without fixed seats	2.4
Attics Accessible by a stairway in <u>residential occupancies</u> only	1.4
Having limited accessibility so that there is no storage of equipment or material	0.5
Balconies, exterior	4.8
Balconies, interior and <u>mezzanines</u> that could be used for the assembly of people as a viewing area.	4.8
Balconies, interior other than above	(1)
<u>Mezzanines</u> other than above	(1)
Column 1	2

Table 4.1.6.A. (Cont'd)

Use of Area of Floor or Roof	Minimum Specified Load kPa
Corridors, lobbies and aisles other than those listed below	4.8
Corridors, lobbies and aisles not over 1 200 mm in width and all upper floor corridors of residential areas only of apartments, hotels and motels (that can not be used for the assembly of people as a viewing area)	(1)
Equipment areas and <u>service rooms</u> including Generator rooms Mechanical equipment exclusive of elevators Machine rooms Pump rooms Transformer vaults Ventilating or air-conditioning equipment	3.6(2)
<u>Exits</u> and fire escapes	4.8
Factories	6.0(2)
Footbridges	4.8
Garages for Passenger cars Unloaded buses and light trucks Loaded buses and trucks and all other trucking spaces	2.4 6.0 12.0
Kitchens (other than residential)	4.8
Libraries Stack rooms Reading and study rooms	7.2 2.9
Office areas in office <u>buildings</u> and other <u>buildings</u> (not including record storage and computer rooms) located in <u>Basement</u> and first floor Floors above first floor	4.8 2.4
Operating rooms and laboratories	3.6
Patients' bedrooms	1.9
Column 1	2

Table 4.1.6.A. (Cont'd)

Use of Area of Floor or Roof	Minimum Specified Load kPa
Recreation areas that cannot be used for assembly purposes including Billiard rooms Bowling alleys Pool rooms	3.6
Residential areas (within the scope of Article 2.1.1.2.) Sleeping and living quarters in apartments, hotels, motels, boarding schools and colleges	1.9
Residential areas (within the scope of Article 2.1.1.2.) Bedrooms	1.4
Other areas	1.9
Stairs within <u>dwelling units</u>	1.9
Retail and wholesale areas	4.8
Roofs	1.0 ⁽³⁾
Sidewalks and driveways over areaways and basements	12.0
Storage areas	4.8 ⁽²⁾
Toilet areas	2.4
Underground slabs with earth cover	(2)
Warehouses	4.8 ⁽²⁾
Column 1	2

Notes to Table 4.1.6.A.:

- (1) See Sentence 4.1.6.3.(2).
 (2) See Sentence 4.1.6.3.(3).
 (3) See Article 4.1.7.1.
 (4) See Sentence 4.1.6.3.(5).

Loads for
occupancy
served

(2) Corridors, lobbies and aisles not over 1 200 mm in width, all upper floor corridors of residential areas of apartments, hotels and motels and interior balconies and mezzanines shall be designed to carry not less than the specified load required for the occupancy they serve provided they can not be used for the assembly of people as a viewing area.

Exterior areas accessible to vehicular traffic

(3) Exterior areas accessible to vehicular traffic shall be designed for their intended use including the weight of fire fighting equipment, but not less than the live loads due to snow, ice and rain prescribed in Subsection 4.1.7.

Exterior areas accessible to pedestrian traffic

(4) Exterior areas accessible to pedestrian traffic, but not vehicular traffic, shall be designed for their intended use, but not less than

(a) the live load prescribed for assembly areas in Table 4.1.6.A., and

(b) the live loads due to snow, ice and rain as prescribed in Subsection 4.1.7.

Loads for dining areas

(5) The minimum specified load in Table 4.1.6.A. for dining areas may be reduced to 2.4 kPa for dining areas in buildings that have been converted for such purposes provided that the floor area does not exceed 100 m² and use of the dining area for other assembly purposes including dancing is precluded.

Floor loads due to intended use

(6) Equipment areas and service rooms, factories, storage areas and warehouses shall be designed for the loads due to their intended use but not less than the specified loads listed in Table 4.1.6.A.

More than one occupancy

(7) Where an area of floor or roof is intended for 2 or more occupancies at different times, the value to be used from Table 4.1.6.A. shall be the greatest value for any of the occupancies concerned.

Variation with tributary area

(8) Where a structural member supports a tributary area of floor, roof or combination thereof greater than 80 m² used for assembly occupancies designed for a live load of 4.8 kPa or more, or for storage, manufacturing, retail stores, garages or as a footbridge, the specified live load due to use and occupancy, excluding snow, is the load provided for in Sentence (1) multiplied by

$$0.5 + \sqrt{20/A}$$

where A is the tributary area in square metres for this type of use and occupancy, excluding the area supporting snow.

(9) Where a structural member supports a tributary area of floor, roof or combination of these greater than 20 m² for any use or occupancy other than assembly occupancies and those indicated in Sentence (8), the specified live load due to use and occupancy, excluding snow, is the load provided for in Sentence (1) multiplied by

$$0.3 + \sqrt{9.8/B}$$

where B is the tributary area in square metres for this type of use and occupancy excluding the area supporting snow.

Concentrated loads

4.1.6.4. The specified load due to possible concentrations of load resulting from the use of an area of floor or roof shall not be less than that listed in Table 4.1.6.B. applied over an area of 750 mm by 750 mm located so as to cause maximum effects, except that for occupancies not listed in Table 4.1.6.B. the concentrations of load shall be determined in accordance with Article 4.1.6.2.

Table 4.1.6.B.
Forming Part of Article 4.1.6.4.

Area of Floor or Roof	Minimum Specified Concentrated Load, kN
Roof surfaces	1.3
Floors of classrooms	4.5
Floors of offices, manufacturing <u>buildings</u> , hospital wards and stages	9.0
Floors and areas used by passenger cars	11
Floors and areas used by vehicles not exceeding 3 600 kg gross weight	18
Floors and areas used by vehicles exceeding 3 600 kg but not exceeding 9 000 kg gross weight	36
Floors and areas used by vehicles exceeding 9 000 kg gross weight	54
Driveways and sidewalks over areaways and <u>basements</u>	54
Column 1	2

Bleacher seats

4.1.6.5. Bleacher seats shall be designed for a uniformly distributed load of 1.75 kN for each linear metre or for a concentrated load of 2.2 kN distributed over a length of 0.75 m, whichever produces the greatest effect on the supporting members.

Heliports

4.1.6.6. Helicopter landing areas on roofs shall be constructed in conformance with the regulations for Heliports established by Transport Canada.

Roof parking decks

4.1.6.7. Roof parking decks shall be designed for the uniformly distributed loads in Table 4.1.6.A., the concentrated loads in Table 4.1.6.B. or the roof

snow load, whichever produces the greatest effect in the members concerned.

SUBSECTION 4.1.7. LOADS DUE TO SNOW, ICE AND RAIN

Specified snow loading

4.1.7.1.(1) The specified loading, S , due to snow accumulation on a roof or any other building surface subject to snow accumulation shall be calculated from the formula

$$S = S_0 \cdot C_b \cdot C_w \cdot C_s \cdot C_a$$

where S_0 is the ground snow load in kPa, determined in accordance with Subsection 2.5.1., C_b is the basic roof snow load factor of 0.8, C_w is the wind exposure factor in Sentence (2), C_s is the slope factor in Sentence (4), and C_a is the accumulation factor in Sentence (5).

Wind exposure factor

(2) Except as provided for in Sentence (3), the wind exposure factor, C_w , shall be 1.0.

(3) The wind exposure factor in Sentence (2) may be reduced to 0.75 where

- (a) the building is in an exposed location, so that the roof is exposed to the winds on all sides, with no obstructions higher than the roof located closer to the building than a distance equal to 10 times the height of the obstruction above the roof,
- (b) the roof does not have any significant projections, such as parapet walls, that exceed a height of 0.25 S_0 metres, and
- (c) the loading does not involve accumulation of snow due to drifting from adjacent surfaces.

Roof slope factor

(4) The slope factor, C_s , shall be

(a) 1.0 when the roof slope, α , is equal to or less than 30° ,

(b) $1.0 - \left(\frac{\alpha - 30^\circ}{40^\circ} \right)$ when α is greater than 30° , but not greater than 70° ,

(c) 0 when α exceeds 70° , and

(d) 1.0 when used in conjunction with accumulation factors for increased snow load as given in Clauses (5)(b)(ii) and (5)(b)(v).

Accumulation
factor

(5) The accumulation factor, C_a ,

(a) shall be 1.0 and

(b) where appropriate for the shape of the roof,
assigned other values which account for

(i) non-uniform snow loads on gable,
arched or curved roofs,

(ii) increased snow loads in valleys,

(iii) increased non-uniform snow loads due
to snow drifting onto a roof which is
at a level lower than other parts of
the same building or at a level lower
than another building within 5 m of
it,

(iv) increased non-uniform snow loads on
areas adjacent to roof projections,
such as penthouses, large chimneys
and equipment, and

(v) increased snow or ice loads due to
snow sliding or drainage of meltwater
from adjacent roofs.

Full and
partial loading

4.1.7.2.(1) A roof or other building surface and
its structural members subject to loads due to snow
accumulation shall be designed for the specified load
in Sentence 4.1.7.1.(1), distributed over the entire
loaded area.

(2) In addition to the distribution in Sentence (1),
flat roofs and shed roofs, gable roofs of 15° slope
or less and arched or curved roofs with rise to span
ratios equal to or less than 1/10 shall be designed
for the specified uniform snow load in Sentence
4.1.7.1.(1), computed using $C_a = 1.0$, distributed on
any 1 portion of the loaded area, and half of this
load on the remainder of the loaded area, in such a
way as to produce the greatest effects on the member
concerned.

Rain loads

4.1.7.3.(1) The specified load due to the
accumulation of rain water on a surface, whose
position and shape and deflection under load is such
as to make such an accumulation possible, is that
resulting from the 24 h rainfall determined in
conformance with Subsection 2.5.1. over the
horizontal projection of the surface and all
tributary surfaces.

(2) The provisions of Sentence (1) apply whether or not the surface is provided with drainage, such as rain water leaders.

(3) Loads due to rain need not be considered to act simultaneously with loads due to snow.

SUBSECTION 4.1.8. LIVE LOADS DUE TO WIND

External pressure
or suction

4.1.8.1.(1) The specified external pressure or suction due to wind on part or all of a surface of a building shall be calculated from

$$p = qC_eC_gC_p$$

where p = the specified external pressure acting statically and in a direction normal to the surface either as a pressure directed towards the surface or as a suction directed away from the surface,

q = the reference velocity pressure as provided for in Sentence (4),

C_e = the exposure factor as provided for in Sentence (5),

C_g = the gust effect factor as provided for in Sentence (6), and

C_p = the external pressure coefficient averaged over the area of the surface considered.

Net wind load
on whole building

(2) The net wind load for the building as a whole shall be the algebraic difference of the loads on the windward and the leeward surfaces, and in some cases may be calculated as the products of the external pressures or suctions and the areas of the surfaces over which they are averaged as provided in Sentence (1).

Internal pressure
or suction

(3) The net specified pressure due to wind on part or all of a surface of a building shall be the algebraic difference of the external pressure or suction as provided for in Sentence (1) and the specified internal pressure or suction due to wind calculated from either

$$(a) \quad p_i = qC_eC_{p_i}$$

or

$$(b) \quad p_i = qC_eC_gC_{p_i}$$

where p_i = the specified internal pressure acting statically and in a direction normal to the surface either as a pressure (directed outwards) or as a suction (directed inwards),

q, C_e, C_g are as provided for in Sentences (4), (5) and (6), respectively, except that C_e shall

be evaluated at the building mid-height instead of the height of the element considered, and

C_{pi} = the internal pressure coefficient.

Formula (b) shall be used if the building has significant openings such that the effects of wind gusts are transmitted to the internal air space of the building. In the design of cladding adequate allowance shall be made for regions of high local external pressures or suctions.

Reference
velocity pressure

(4) The reference velocity pressure, q , is the appropriate value determined in conformance with Subsection 2.5.1. for the following conditions:

- (a) the reference velocity pressure, q , for the design of cladding shall be based on a probability of being exceeded in any one year of 1 in 10,
- (b) the reference velocity pressure, q , for the design of structural members for deflection and vibration shall be based on a probability of being exceeded in any one year of 1 in 10,
- (c) for all buildings, except those listed in Clause (d), the reference velocity pressure, q , for the design of structural members for strength shall be based on a probability of being exceeded in any one year of 1 in 30, and
- (d) the reference velocity pressure, q , for the design of structural members for strength for post-disaster buildings shall be based on a probability of being exceeded in any one year of 1 in 100.

Exposure
factor

(5) The exposure factor C_e shall be

- (a) the value shown in Table 4.1.8.A. for the appropriate reference height for the surface or part of the surface,
- (b) the value of the function $(h/10)^{1/5}$ but not less than 0.9 where h is the reference height above grade in metres for the surface or part of the surface, or
- (c) if a dynamic approach to the action of wind gusts is used, an appropriate value depending on both height and shielding.

Gust effect
factor

(6) The gust effect factor C_g is one of the following values:

- (a) 2.0 for the building as a whole and main structural members,
- (b) 2.5 for small elements including cladding, or
- (c) if a dynamic approach to the action of wind gusts is used, an appropriate value depending on the turbulence of the wind and the size and natural frequency of the structure.

Table 4.1.8.A.
Forming Part of Sentence 4.1.8.1.(5)

Height, m	Exposure Factor
Over 0 to 6	0.9
" 6 to 12	1.0
" 12 to 20	1.1
" 20 to 30	1.2
" 30 to 44	1.3
" 44 to 64	1.4
" 64 to 85	1.5
" 85 to 140	1.6
" 140 to 240	1.8
" 240 to 400	2.0
Column 1	2

Dynamic effects
of wind

4.1.8.2.(1) Buildings whose height is greater than 4 times their minimum effective width or greater than 120 m and other buildings whose light weight, low frequency and low damping properties make them susceptible to vibration shall be

- (a) designed by experimental methods for the danger of dynamic overloading and vibration and the effects of fatigue, or
- (b) designed using a dynamic approach to the action of wind gusts.

Full and
partial loading

4.1.8.3.(1) Buildings and structural members shall be capable of withstanding the effects of

- (a) the full wind load over the entire area, or
- (b) 0.75 times the full wind load acting over any portion of the area and full load on the rest of the area, whichever produces the greatest effect on the building or member concerned.

Interior walls
and partitions

4.1.8.4.(1) In the design of interior walls and partitions due consideration shall be given to differences in air pressure on opposite sides of the wall or partition which may result from

- (a) pressure differences between the windward and leeward sides of a building,
- (b) stack effects due to a difference in air temperature between the exterior and interior of the building, and
- (c) air pressurization by the mechanical services of the building.

SUBSECTION 4.1.9. LIVE LOADS DUE TO EARTHQUAKES

Type of
analysis

4.1.9.1.(1) The specified loading due to earthquake motion shall be determined by the analysis given in this Subsection.

Nomenclature

(2) In this Subsection

- D = the dimension of the building in a direction parallel to the applied forces.
- D_n = plan dimension of the building in the direction of the computed eccentricity.
- D_s = the dimension of the lateral force-resisting system in a direction parallel to the applied forces.
- e = distance between the location of the resultant of all forces at and above the level being considered and the centre of rigidity at the level being considered.
- e_x = design eccentricity at level x.
- F = foundation factor as given in Sentence 4.1.9. 1(10).
- F_t = portion of V to be concentrated at the top of the structure as defined in Sentence 4.1.9.1.(12).
- F_x = lateral force applied to level x.
- h_i, h_n, h_x = the height above the base ($i=0$) to level "i", "n", or "x", respectively.
- I = importance factor of the structure as described in Sentence 4.1.9.1.(9).
- J = numerical reduction coefficient for base overturning moment as defined in Sentence 4.1.9.1.(20).
- J_x = numerical reduction coefficient for moment at level "x" as defined in Sentence 4.1.9.1.(21).
- K = numerical coefficient that reflects the material and type of construction, damping, ductility and/or energy-absorptive capacity of the structure as given in Sentence 4.1.9.1.(7).

Level i = any level in the building, $i = 1$ for first level above the base.

Level n = that level which is uppermost in the main portion of the structure.

Level x = that level which is under design consideration.

M_{tx} = torsional moment at level x .

N = the total number of storeys above exterior grade to level " n ". (N is usually numerically equal to n .)

S = seismic response factor for the structure as defined in Sentence 4.1.9.1.(5).

S_p = horizontal force factor for part or portion of a building, as given in Table 4.1.9.D.

T = fundamental period of vibration of the building or structure in seconds in the direction under consideration.

v = zonal velocity ratio = the specified zonal horizontal ground velocity expressed as a ratio to 1 m/s.

V = minimum lateral seismic force at the base of the structure.

V_p = lateral force on a part of the structure.

W = dead load plus the following:
25 per cent of the design snow load specified in Subsection 4.1.7., 60 per cent of the storage load for areas used for storage and the full contents of any tanks.

W_i, W_x = that portion of W which is located at or is assigned to level " i " or " x ", respectively.

W_p = the weight of a part or portion of a structure, e.g. cladding, partitions and appendages.

Z_a = acceleration-related seismic zone.

Z_v = velocity-related seismic zone.

Direction of forces

(3) Earthquake forces shall be assumed to act in any horizontal direction, except that independent design about each of the principal axes shall be considered to provide adequate resistance in the structure for earthquake forces applied in any direction.

Lateral seismic force

(4) The minimum lateral seismic force, V , shall be equal to the product of

$$v \cdot S \cdot K \cdot I \cdot F \cdot W$$

where v is the zonal velocity ratio determined in conformance with Subsection 2.5.1., except when Z_v equals 0 and Z_a is greater than 0, the value of Z_v shall be taken as 1 and v as 0.05.

Seismic response factor

(5) The seismic response factor, S , shall conform to Table 4.1.9.A.:

Table 4.1.9.A.
Forming part of Sentence 4.1.9.1.(5)

T	Z_a/Z_v	S
Not more than 0.25	Greater than 1.0	0.62
	1.0	0.44
	Less than 1.0	0.31
Over 0.25 but less than 0.50	Greater than 1.0	$0.62-1.23(T-0.25)$
	1.0	$0.44-0.50(T-0.25)$
	Less than 1.0	0.31
0.50 and over	All values	$0.22/\sqrt{T}$
Column 1	2	3

**Fundamental
period**

(6) The fundamental period T, in Sentence (5) shall be determined by

- (a) the formula $0.09h_n/\sqrt{D_s}$ where h_n and D_s are in metres, except that T shall equal $0.1 \cdot N$ where the lateral force-resisting system consists of a moment-resisting space frame which resists 100 per cent of the required lateral forces and the frame is not enclosed by or adjoined by more rigid elements that would tend to prevent the frame from resisting lateral forces, or
- (b) other established methods of mechanics provided they do not result in a value that exceeds 1.2 times the period calculated in Clause (a).

**Types of
construction**

(7) Except as provided for in Sentences 4.1.9.3.(1) and (2), values of the numerical coefficient, K, shall conform to Table 4.1.9.B.

(8) For the purpose of applying Table 4.1.9.B.

- (a) A space frame shall mean a 3 dimensional structural system composed of interconnected members laterally supported so as to function as a completed self-contained unit with or without horizontal diaphragms,
- (b) A ductile moment-resisting space frame shall mean a space frame that is designed to resist the specified seismic forces and that, in addition, has adequate ductility or energy-absorptive capacity,

- (c) A ductile flexural wall shall mean a ductile flexural member cantilevering from the foundation consisting of a ductile reinforced concrete wall designed and detailed according to CAN3-A23.3, "Design of Concrete Structures for Buildings," Chapter 21, Special Provisions for Seismic Design, and
- (d) Shear walls shall mean either flexural walls or shear walls as defined in CAN3-A23.3, "Design of Concrete Structures for Buildings," Chapter 21, Special Provisions for Seismic Design.

Importance factor

- (9) The importance factor, I, shall equal 1.3 for all post-disaster buildings and schools, and 1.0 for all other buildings.

Foundation factor

- (10) The foundation factor, F, shall conform to Table 4.1.9.C., except that the product F.S need not exceed 0.44 where Z_a does not exceed Z_v and need not exceed 0.62 where Z_a is greater than Z_v .

Weight of structure

- (11) The weight, W, of the structure shall be calculated in accordance with the following formula:

$$W = \sum_{i=1}^n W_i$$

Distribution of lateral seismic force

- (12) The total lateral seismic force, V, shall be distributed as follows:

- (a) a portion, F_t , shall be assumed to be concentrated at the top of the structure and equal to $0.004 V(h_n/D_s)^2$, except that F_t need not exceed 0.15 V and may be considered as zero where (h_n/D_s) does not exceed 3, and the remainder, $V-F_t$, shall be distributed along the height of the building, including the top level, in accordance with the formula

$$F_x = (V-F_t) W_x h_x / \left(\sum_{i=1}^n W_i h_i \right); \text{ or}$$

- (b) by dynamic analysis.

- (13) The total shear in any horizontal plane shall be distributed to the various elements of the lateral force-resistant system in proportion to their rigidities according to rational analysis, with due regard to the capacities and stiffnesses of the nonstructural elements and to the effects of torsion as required by Sentence 4.1.9.1.(22).

Table 4.1.9.B.
Forming Part of Sentence 4.1.9.1.(7)

Case	Type or Arrangement of Resisting Elements	Value of K
1	<u>Buildings</u> with a ductile moment-resisting space frame with the capacity to resist the total required force.	0.7
2	<p><u>Buildings</u> with a dual structural system consisting of a complete ductile moment-resisting space frame and ductile flexural walls designed in accordance with the following criteria:</p> <p>The frames and ductile flexural walls shall resist the total lateral force in accordance with their relative rigidities considering the interaction of the flexural walls and frames. In this analysis the maximum shear in the frame must be at least 25 percent of the total base shear.</p>	0.7
3	<p><u>Buildings</u> with a dual structural system consisting of a complete ductile moment-resisting space frame and shear walls or steel bracing designed in accordance with the following criteria:</p> <p>(a) The shear walls or steel bracing acting independently of the ductile moment-resisting space frame shall resist the total required lateral force.</p> <p>(b) The ductile moment-resisting space frame shall have the capacity to resist not less than 25 per cent of the required lateral force, but in no case shall the ductile moment-resisting space frame have a lower capacity than that required in accordance with the relative rigidities.</p>	0.8
4	<u>Buildings</u> with ductile flexural walls and <u>buildings</u> with ductile framing systems not otherwise classified in this Table as Cases 1, 2, 3 or 5.	1.0
5	<p><u>Buildings</u> with a dual structural system consisting of a complete ductile moment-resisting space frame with masonry infilling designed in accordance with the following criteria:</p> <p>(a) The wall system comprising the infilling and the confining elements acting independently of the ductile moment-resisting space frame shall resist the total required lateral force.</p> <p>(b) The ductile moment-resisting space frame shall have the capacity to resist not less than 25 per cent of the required lateral force.</p>	1.3
Col.1	2	3

Table 4.1.9.B. (Cont'd)

Case	Type or Arrangement of Resisting Elements	Value of K
6	<u>Buildings</u> (other than Cases 1, 2, 3, 4 and 5) of continuously reinforced concrete, structural steel or reinforced masonry shear walls.	1.3
7	<u>Buildings</u> of unreinforced masonry and all other structural systems except Cases 1 to 6 inclusive and those set forth in Table 4.1.9.D.	2.0
8	Elevated tanks plus full contents, on 4 or more cross-braced legs and not supported by a <u>building</u> , designed in accordance with the following criteria: (a) The minimum and maximum value of the product SKI shall be taken as 0.53 and 1.1, respectively. (b) For overturning, the factor J as set forth in Sentence 4.1.9.1.(20) shall be 1.0. (c) The torsional requirements of Sentence 4.1.9.1.(22) shall apply.	3.0
Col.1	2	3

Table 4.1.9.C.
Forming Part of Sentence 4.1.9.1.(10)

Type and Depth of <u>Soil</u> Measured from the <u>Foundation</u> or <u>Pile</u> Cap Level	F
<u>Rock</u> , dense and very dense coarse-grained <u>soils</u> , very stiff and hard fine-grained <u>soils</u> ; compact coarse-grained <u>soils</u> and firm and stiff fine-grained <u>soils</u> from 0 to 15 m deep	1.0
Compact coarse-grained <u>soils</u> , firm and stiff fine-grained <u>soils</u> with a depth greater than 15 m; very loose and loose coarse-grained <u>soils</u> and very soft and soft fine-grained <u>soils</u> from 0 to 15 m deep	1.3
Very loose and loose coarse-grained <u>soils</u> , and very soft and soft fine-grained <u>soils</u> with depths greater than 15 m	1.5
Column 1	2

Lateral force on parts of buildings

(14) Parts of buildings as described in Table 4.1.9.D. and their anchorage shall be designed for a lateral force, V_p , equal to $v \cdot Sp \cdot W_p$, distributed according to the distribution of mass of the element

Table 4.1.9.D.
Forming Part of Sentence 4.1.9.1.(15)

Category	Part or Portion of <u>Building</u>	Direction of Force	Value of S_p
1	All exterior and interior walls except those of Category 2 and 3	Normal to flat surface	0.9
2	Cantilever parapet and other cantilever walls except retaining walls	Normal to flat surface	4.4
3	Exterior and interior ornamentations and appendages	Any direction	4.4
4	Machinery, fixtures, equipment and pipes that are both rigid and rigidly connected to or forming part of a <u>building</u> Tanks completely filled with liquids, rigidly connected Tanks or bins containing non-liquids, rigidly connected	Any direction	0.9
	Machinery, fixtures, equipment, pipes and tanks including contents other than those listed above (See Appendix A.)	Any direction	4.4
5	Towers, <u>chimneys</u> , smokestacks and penthouses when connected to or forming part of a <u>building</u>	Any direction	1.3
6	Tanks plus contents when resting on the ground within a <u>building</u>	Any direction	0.9
7	Floors and roofs acting as diaphragms	Any direction	0.45
8	Connections for exterior and interior walls and elements, except those forming part of the main structural system	Any direction	11.0
Col.1	2	3	4

under consideration, where v is determined in conformance with Subsection 2.5.1., except when Z_v equals zero and Z_a is greater than zero, v shall be taken as 0.05.

Horizontal
force factor

(15) Except as provided for in Sentences (16) to (19), the values of S_p in Sentence (14) shall conform to Table 4.1.9.D.

(16) The value of S_p in Sentence (14), acting in any direction, for towers, chimneys, smokestacks and penthouses when connected to or forming part of a building having an h/D ratio equal to or greater than 5 shall be 2.0.

(17) The value of S_p in Sentence (14), acting in any direction, for pipes and containers plus contents for toxic or explosive materials, for materials having a flash point below 38°C or for fire fighting fluids shall be 6.6, except that where a tank plus contents rests on the ground within a building, the value of S_p shall be 1.3.

(18) Floors and roofs acting as diaphragms shall be designed for a minimum force corresponding to a value of S_p equal to 0.44 applied to loads tributary from that storey, unless a greater force F_x is assigned to the level under consideration as in Sentences (12) and (13).

(19) When the mass of a tank plus contents is greater than 10 per cent of the mass of the supporting floor, the lateral forces shall be determined by rational analysis.

Overturning

(20) The overturning moment, M at the base of the structure shall be multiplied by a reduction coefficient, J , where

(a) $J = 1$ where T is less than 0.5.

(b) $J = (1.1 - 0.2T)$ where T is at least 0.5, but not more than 1.5, and

(c) $J = 0.8$ where T is greater than 1.5.

(21) The overturning moment M_x at any level x shall be multiplied by J_x where

$$J_x = J + (1-J)(h_x/h_n)^3$$

The incremental changes in the design overturning moments, in the storey under consideration, shall be distributed to the various resisting elements in the same proportion as the distribution of shears in the resisting system. Where other vertical members are provided which are capable of partially resisting the over-turning moments, a redistribution may be made to these members if framing members of sufficient strength and stiffness to transmit the required loads are provided. Where a vertical-resisting element is discontinuous, the overturning moment carried by the lowest storey of that element shall be carried down as loads to the foundation.

Torsional
moments

(22) Torsional moments in the horizontal plane of the building shall be computed in each storey using the following formula:

$$M_{tx} = (F_t + \sum_{i=1}^n F_i) e_x$$

Design
eccentricity

(23) The design eccentricity, e_x , in Sentence (22) shall be computed by one of the following equations, whichever provides the greater stresses:

(a) $e_x = 1.5e + 0.10D_n$, or

(b) $e_x = 0.5e - 0.10D_n$.

(24) Where the centroids of mass and the centres of stiffness of the different floors do not lie approximately on vertical lines, a dynamic analysis shall be carried out to determine the torsional effects.

Setbacks

(25) The building design shall take full account of the possible effects of setbacks.

General
provisions

4.1.9.2.(1) Lateral deflections of a storey relative to its adjacent storeys shall be considered in accordance with accepted practice.

(2) Lateral deflections of a storey relative to its adjacent storeys obtained from an elastic analysis using the loads given in Sentences 4.1.9.1.(12) and (13) shall be multiplied by 3 to give realistic values of anticipated deflections.

(3) All portions of the structure shall be designed to act as integral units in resisting horizontal forces, unless separated by adequate clearances which permit horizontal deflections of the structure consistent with values of deflections calculated in accordance with Sentence 4.1.9.2.(2).

(4) The nonstructural components shall be designed so as not to transfer to the structural system any forces unaccounted for in the design, and any interaction of rigid elements such as walls and the structural system shall be designed so that the capacity of the structural system is not impaired by the action or failure of the rigid elements.

(5) To prevent collision of buildings in an earthquake, adjacent structures shall either be separated by twice the sum of their individual deflections obtained from an elastic analysis using the loads given in Sentences 4.1.9.1.(12) and (13) or shall be connected to each other.

Special
provisions

(6) The method of connection in Sentence (5) shall take into account the mass, stiffness, strength, ductility and anticipated motion of the connected buildings and the character of the connection.

(7) The connected buildings in Sentence (5) shall be assumed to have a K value equal to that of the least ductile of the buildings connected, unless a lower value can be justified by rational analysis.

4.1.9.3.(1) Buildings more than 3 storeys in building height in velocity-related seismic zones of 2 and higher shall have a structural system as described in Cases 1 to 6 in Table 4.1.9.B.

(2) For buildings more than 60 m in height with a structural system as described in Case 6 in Table 4.1.9.B., the value of K shall be increased to 2.0 in velocity-related seismic zones of 4 and higher.

(3) The design for any structural system which has an assigned value of K of 1 or less shall ensure that when any member yields the remaining members of the structure shall be capable of resisting 25 per cent of the design seismic force including the effects of torsion.

(4) For buildings in velocity-related seismic zones of 2 and higher in which discontinuities in columns or shear walls occur, special design provisions shall be made to ensure that failure at the point of discontinuity will not occur before the capacity of the remaining portion of the structure has been realized.

(5) In velocity-related seismic zones of 2 and higher, reinforcement conforming to Clause 4.10 of CAN3-S304, "Masonry Design and Construction for Buildings" shall be provided for masonry construction in

- (a) loadbearing and lateral load-resisting masonry,
- (b) masonry enclosing elevator shafts and stairways, or used as exterior cladding, and
- (c) masonry partitions, except for partitions which,
 - (i) do not exceed 200 kg per sq metre in weight, and
 - (ii) do not exceed 3 m in height and are laterally supported at the top.

Foundation provisions

4.1.9.4.(1) Foundations shall be designed so that yielding will occur first in the superstructure and not the foundations, unless the design specifically provides otherwise.

(2) Except in velocity-related seismic Zone 0, individual pile footings, drilled piers and caissons shall be interconnected by ties in at least 2 directions.

(3) Ties in Sentence (2) shall be designed to carry by tension or compression a horizontal force equal to the greatest factored pile cap loading multiplied by a factor 0.5 v, but not exceeding 10 per cent of the greatest factored pile cap load, unless it can be demonstrated that equivalent restraints can be provided by other means.

(4) Except in velocity-related seismic Zone 0, piles shall be connected to the pile cap or structure by reinforcement having sufficient anchorage to develop the yield strength of the reinforcement, and the top of the piles (below the pile cap) shall be reinforced to allow ductile behaviour if the design depends upon such action.

(5) Except in velocity-related seismic Zones 0 and 1, basement walls shall be designed to resist seismic lateral pressures from back fill or natural ground.

SUBSECTION 4.1.10. OTHER EFFECTS

Loads on guards

4.1.10.1.(1) The minimum specified load applied horizontally and normal to the span at the top of every required guard shall be

- (a) 0.6 kN/m for exterior balconies of individual residential units and a concentrated load of 0.9 kN applied concurrently,
- (b) 1.5 kN/m for exits and stairs,
- (c) 3.6 kN/m, for grandstands and stadia including ramps,
- (d) 4.4 kN/m for vehicle guard rails for parking garages applied 500 mm above the roadway but not less than 11 kN uniformly distributed over each vehicle space applied 500 mm above the roadway,
- (e) a concentrated load of 0.55 kN applied at any point for access walkways to equipment platforms, contiguous stairs and similar

areas where the gathering of many people is improbable, and

(f) 2.2 kN/m for locations other than described in Clauses (a) to (e).

(2) Individual elements within the guard, including solid panels and pickets, shall be designed for 1 kPa or 0.45 kN of concentrated load at any point in the element, whichever results in the more critical loading condition.

(3) The loads in Sentence (2) need not be considered to act simultaneously with the loads provided for in Sentences (1) and (4).

(4) The minimum specified load applied vertically at the top of every required guard shall be 1.5 kN/m and need not be considered to act simultaneously with the horizontal load provided for in Sentence (1).

Loads on walls

4.1.10.2. Where the floor elevation on one side of a wall is at least 600 mm greater than the elevation of the floor or ground on the other side, the wall shall be designed to resist the appropriate lateral design loads prescribed elsewhere in this Section or 0.5 kPa, whichever produces the greatest effect.

Impact and vibrations

4.1.10.3.(1) Where vibration effects, such as resonance and fatigue resulting from machinery or equipment, are likely to be significant, a dynamic analysis shall be carried out.

Table 4.1.10.A.
Forming Part of Article 4.1.10.3.(2)

Impact Due To	Factor
Operation of motor driven cranes	1.25
Operation of hand driven cranes	1.10
Operation of elevators	See Clause 2.6.2. of CSA B44
Supports for light machinery, shaft or motor driven	1.20
Supports for reciprocating machinery (e.g compressors) or power driven units (e.g. piston engines)	1.50
Column 1	2

(2) The minimum specified load due to equipment, machinery or other objects that may produce impact shall be the sum of the weight of the equipment or

machinery and its maximum lifting capacity, multiplied by an appropriate factor listed in Table 4.1.10.A.

Horizontal crane loads

(3) Crane runway rails shall be designed to resist a lateral force applied normal to the top of the rails equal to at least 20 per cent of the sum of the weights of the lifted load and the crane trolley (excluding other parts of the crane) in the case of power operated trolleys, and equal to at least 10 per cent of the sum of the weights in the case of hand operated trolleys.

(4) The force described in Sentence (3) shall be equally distributed on each side of the runway and shall be assumed to act in either direction.

(5) Crane runway rails shall be designed to resist a lateral force applied parallel to the top of the rail equal to at least 10 per cent of the maximum wheel loads of the crane.

Vibrations from rhythmic activities

4.1.10.4.(1) Where the fundamental vibration frequency of a structural system supporting an assembly occupancy used for rhythmic activities, such as dancing, concerts, jumping exercises or gymnastics, is less than 6 Hz, the effects of resonance shall be investigated by means of a dynamic analysis.

Inertia sway forces

(2) The floor assembly and other structural elements that support fixed seats in any building used for assembly occupancies to accommodate large numbers of people at one time, such as grandstands, stadia and theatre balconies, shall be designed to resist a horizontal force equal to at least 0.3 kN for each metre length of seats acting parallel to each row of seats, and at least 0.15 kN for each metre length of seat acting at right angles to each row of seats, assuming such forces to be acting independently of each other.

Bleachers

4.1.10.5.(1) Bleachers shall be checked by the erector after erection to ensure that all structural members including bracing specified in the design have been installed.

(2) Telescopic bleachers shall be provided with locking devices to ensure stability while in use.

4.1.10.6.(1) Every building which exceeds 3 storeys in building height shall be provided with anchor systems for window cleaning operations where these operations are intended to be done from the exterior of the building.

(2) Except as provided in Sentence (3), such anchor systems shall be installed in conformance with Section 4 of the CSA Standard Z91, "Safety Code for Window Cleaning Operations".

(3) Other anchor systems may be used where such systems do not provide a lesser level of safety.

SECTION 4.2 FOUNDATIONS

SUBSECTION 4.2.1. GENERAL

4.2.1.1. This Section applies to excavations and foundation systems for buildings.

SUBSECTION 4.2.2. SUBSURFACE INVESTIGATIONS AND REVIEWS

Subsurface
investigations

4.2.2.1. A subsurface investigation shall be carried out, which shall include groundwater conditions.

4.2.2.2. RESERVED.

Review

4.2.2.3.(1) A review shall be carried out by the designer or by another suitably qualified person to ensure that the subsurface conditions are consistent with the design and that construction is carried out in accordance with the design and good engineering practice.

(2) The review required in Sentence (1) shall be carried out

(a) on a continuous basis

(i) during the construction of all deep foundation units with all pertinent information recorded for each unit, and

(ii) during the installation and removal of retaining structures and related backfilling operations, and

(b) as required, unless otherwise directed by the authority having jurisdiction,

(i) in the construction of all shallow foundation units, and

(ii) in excavating, dewatering and other related works.

Altered
subsurface
conditions

4.2.2.4.(1) Where during construction the soil, rock or groundwater is found not to be of the type or in the condition used in design, and as indicated on the drawings, the design shall be reassessed by the designer.

(2) Where during construction climatic or any other conditions have changed the properties of the soil, rock or groundwater, the design shall be reassessed by the designer.

SUBSECTION 4.2.3. MATERIALS USED IN FOUNDATIONS

Wood

4.2.3.1. Wood used in foundations or in support of soil or rock shall conform with the appropriate requirements of Subsection 4.3.1.

4.2.3.2.(1) Wood exposed to soil or air above the lowest anticipated groundwater table shall be treated with preservative in conformance with CSA 080, "Wood Preservation" and the requirements of the appropriate commodity standard as follows:

- (a) CSA 080.2, "Preservative Treatment of Lumber, Timber, Bridge Ties and Mine Ties by Pressure Processes,"
- (b) CSA 080.3, "Preservative Treatment of Piles by Pressure Processes," or
- (c) CSA 080.15, "Preservative Treatment of Wood for Building Foundation Systems, Basements and Crawl Spaces by Pressure Processes."

(2) Where timber has been treated as set forth in Sentence (1), it shall be cared for as provided in CSA 080-M4, "Care of Preservative Treated Wood Products."

Plain and Reinforced Masonry

4.2.3.3. Plain or reinforced masonry used in foundations or in support of soil or rock shall conform with the requirements of Subsection 4.3.2.

4.2.3.4. Where plain or reinforced masonry in foundations or in structures supporting soil or rock may be subject to conditions conducive to deterioration, protection shall be provided to prevent such deterioration.

Preservative
treatment of
wood

Concrete

4.2.3.5. Plain, reinforced or prestressed concrete used in foundations or in support of soil or rock shall conform with the requirements of Subsection 4.3.3.

Chemical attack
on concrete

4.2.3.6. Where concrete in foundations may be subject to chemical attack, it shall be treated in conformance with the requirements in CAN3-A23.1, "Concrete Materials and Methods of Concrete Construction."

Steel

4.2.3.7. Steel used in foundations or in support of soil or rock shall conform with the appropriate requirements of Subsections 4.3.3. or 4.3.4., unless otherwise specified in Section 4.2.

Steel piles

4.2.3.8. Where steel piles are used in deep foundations and act as permanent load-carrying members, the steel shall conform with one of the following standards:

CAN3-G40.21, "Structural Quality Steels,"

ASTM A252, "Welded and Seamless Steel Pipe Piles,"

ASTM A283, "Low and Intermediate Tensile Strength Carbon Steel Plates, Shapes and Bars,"

ASTM A570, "Hot-Rolled Carbon Steel Sheet and Strip, Structural Quality," or

ASTM A611, "Steel, Cold-Rolled Sheet, Carbon, Structural."

High strength
steel tendons

4.2.3.9. Where high strength steel is used for tendons in anchor systems used for the permanent support of a foundation or in the erection of temporary support of soil or rock adjacent to an excavation, it shall conform with the requirements of CAN3-A23. 1, "Concrete Materials and Methods of Concrete Construction."

Corrosion of
steel

4.2.3.10. Where conditions are corrosive to steel, adequate protection of exposed steel shall be provided.

SUBSECTION 4.2.4. DESIGN REQUIREMENTS

Basis of design
for foundations

4.2.4.1.(1) The design of foundations, excavations and soil- and rock-retaining structures shall be based on a subsurface investigation carried out by a person competent in this field of work, and one of the following:

- (a) application of generally accepted geotechnical and civil engineering principles by a person especially qualified in this field of work as provided in this Section and other Sections of Part 4,
- (b) established local practice where such practice includes successful experience both with soils and rocks of similar type and condition and with a foundation or excavation of similar type, construction method, size and depth, or
- (c) in situ testing of foundation units such as the load testing of piles, anchors or footings carried out by a person competent in this field of work.

Subsurface investigation

4.2.4.2. A subsurface investigation shall be carried out to the depth and extent to which the building or excavation will significantly change the stress in the soil or rock, or to such a depth and extent as to provide all the necessary information for the design and construction of the excavation or the foundations.

Identification and classification of soil, rock and groundwater

4.2.4.3. The identification and classification of soil, rock and groundwater and descriptions of their engineering and physical properties shall be in accordance with a widely accepted system.

Loads on foundations

4.2.4.4. The foundation of a building shall be capable of resisting all loads as stipulated in Section 4.1.

Total and differential movement

4.2.4.5. The foundation of a building shall be proportioned so that the estimated total and differential movements of the foundation are not greater than the movements that the building is designed to accommodate.

Depth of foundations

4.2.4.6.(1) Except as permitted in Sentence (2), the bearing surface of a foundation shall be below the level of potential damage, including damage resulting from frost action, and the foundation shall be designed to prevent damage resulting from adfreezing and frost jacking.

(2) The bearing surface of a foundation need not be below the level of potential damage from frost where the foundation

- (a) is designed against frost action, or

(b) overlies material not susceptible to frost action.

- Sloping ground 4.2.4.7. Where a foundation is to rest on, in or near sloping ground, this particular condition shall be provided for in the design.
- Eccentric and inclined loads 4.2.4.8. Where there is eccentricity or inclination of loading in foundation units, this effect shall be fully investigated and provided for in the design.
- Dynamic loading 4.2.4.9. Where dynamic loading conditions apply, allowable loads or allowable bearing pressures shall be assessed by a special investigation of these conditions.
- Hydrostatic uplift 4.2.4.10. Where a foundation or any part of a building is subject to hydrostatic uplift the effects shall be provided for in the design.
- Water table change 4.2.4.11. Where proposed construction will result in a temporary or permanent change in the groundwater level, the effects of this change on adjacent property shall be fully investigated and provided for in the design.
- Permafrost 4.2.4.12. Where conditions of permafrost or perennially frozen soil or rock are encountered or proven to exist, the design of the foundation shall be based upon analysis of these conditions by a person especially qualified in that field of work.
- Swelling and shrinking of soil 4.2.4.13. Where swelling or shrinking soils, in which movements resulting from moisture content changes may be sufficient to cause damage to a structure, are encountered or known to exist, such a condition shall be fully investigated and provided for in the design.
- Expanding and deterioration of rock 4.2.4.14. Where rock which expands or deteriorates when subjected to unfavourable environmental conditions or to stress release is known to exist such condition shall be fully investigated and provided for in the design.
- Construction on fill 4.2.4.15.(1) Buildings may be placed on fill if it can be shown by subsurface investigation that
- (a) the fill is or can be made capable of supporting the design loads,
 - (b) detrimental movement of the building or services leading to the building will not occur, and

(c) explosive gases can be controlled or do not exist.

Structural
design of
foundations

4.2.4.16. The structural design of the foundation of a building, the procedures and construction practices shall conform with the appropriate Sections of this Code unless otherwise specified in Section 4.2.

SUBSECTION 4.2.5. EXCAVATIONS

Excavation
design

4.2.5.1. The design of excavations and of supports for the sides of excavations shall conform with the requirements of Subsection 4.2.4. and to this Subsection.

Excavation
construction

4.2.5.2.(1) Every excavation shall be undertaken in such a manner as to

(a) prevent movement which would cause damage to adjacent property, existing structures, utilities, roads and sidewalks at all stages of construction, and

(b) RESERVED.

(2) Material shall not be placed nor shall equipment be operated or placed in or adjacent to an excavation in a manner that may endanger the integrity of the excavation or its supports.

Supported
excavations

4.2.5.3. The sides of an excavation in soil or rock shall be supported by a retaining structure conforming with the requirements of Articles 4.2.5.1. and 4.2.5.2., except as permitted in Article 4.2.5.4.

Unsupported
excavations

4.2.5.4. The sides of an excavation in soil or rock may be unsupported where a design is prepared by a person especially qualified in this field of work in conformance with the requirements of Articles 4.2.5.1. and 4.2.5.2.

Control of
water around
excavations

4.2.5.5. Surface water, all groundwater, perched groundwater and in particular artesian groundwater shall be kept under control at all stages of excavation and construction.

Loss of ground

4.2.5.6. At all stages of excavation and construction, loss of ground due to water or any other cause shall be prevented.

Protection and
maintenance at
excavations

4.2.5.7. All sides of an excavation, supported and unsupported, shall be continuously maintained and protected from possible deterioration by construction activity or by the action of frost, rain and wind.

Backfilling

4.2.5.8.(1) Where an excavation is backfilled, the backfill shall be placed so as to

(a) provide lateral support to the soil adjacent to the excavation, and

(b) prevent detrimental movements.

(2) The material used as backfill or fill supporting a footing, foundation or a floor on grade shall be of a type that is not subject to detrimental volume change with changes in moisture content and temperature.

SUBSECTION 4.2.6. SHALLOW FOUNDATIONS

Design of shallow foundations

4.2.6.1. The design of shallow foundations shall be in conformance with Subsection 4.2.4. and the requirements of this Subsection.

Foundation support

4.2.6.2. Where a shallow foundation is to be placed on soil or rock, the soil or rock shall be cleaned of loose and unsound material and shall be adequate to support the design load taking into account temperature, precipitation, construction activities and other factors which may lead to changes of the properties of soil or rock.

Incorrect placement of shallow foundations

4.2.6.3. Where a shallow foundation unit has not been placed or located as indicated on the drawings, the error shall be corrected or the design bearing pressure of the foundation unit recalculated for the altered conditions.

Damaged shallow foundation units

4.2.6.4. Where a shallow foundation unit is damaged, it shall be repaired or the design bearing pressure of the foundation unit recalculated for the damaged condition.

SUBSECTION 4.2.7. DEEP FOUNDATIONS

General

4.2.7.1. A deep foundation unit shall provide support for a building by transferring loads by end-bearing to a competent stratum at considerable depth below the structure, or by mobilizing resistance by adhesion or friction, or both, in the soil or rock in which it is placed.

Design of deep foundations

4.2.7.2.(1) Deep foundation units shall be designed in conformance with Subsection 4.2.4. and this Subsection.

Load testing of deep foundations

(2) Where deep foundation units are load tested, as required in Clause 4.2.4.1.(1)(c), the determination of the number and type of load test and the

interpretation of the results shall be carried out by a person especially qualified in this field of work.

Deep foundations
not load tested

(3) Where deep foundation units are not load tested as outlined in Clause 4.2.4.1.(1)(c), and where well established local practice as outlined in Clause 4.2.4.1.(1)(b) is not applicable, the design procedures and the appropriate factors of safety shall be determined by a person especially qualified in this type of work.

Allowable load

4.2.7.3.(1) The allowable load on a deep foundation shall be determined on the basis of geotechnical considerations taking into account

- (a) the method of installation,
- (b) the degree of inspection,
- (c) the spacing of foundation units and group effects, and
- (d) other requirements of this Subsection.

(2) The allowable load on a deep foundation as determined in Sentence (1) shall not be greater than the unfactored load determined on the basis of structural considerations in accordance with the appropriate requirements of Subsections 4.3.1., 4.3.3. and 4.3.4.

(3) The portion of a deep foundation unit permanently in contact with soil or rock shall be structurally designed as a laterally supported compression member.

(4) The portion of a deep foundation unit which is not permanently in contact with soil or rock shall be structurally designed as a laterally unsupported compression member.

(5) The structural design of prefabricated deep foundation units shall allow for all stresses resulting from driving, handling and testing.

Tolerance in
location and
alignment

4.2.7.4. Permissible deviations from the design alignment and the location of the top of deep foundation units shall be determined by design analysis, and shall be indicated on the drawings.

Incorrect
location or
alignment

4.2.7.5. Where a deep foundation unit has not been placed within the permissible deviations referred to in Article 4.2.7.4., the condition of the foundation shall be assessed by the person responsible for the

design, any necessary changes made and action taken as required.

Installation of
deep foundations

4.2.7.6.(1) Deep foundation units shall be installed in such a manner as not to impair

- (a) the strength of the deep foundation units and the properties of the soil or rock on or in which they are placed beyond the calculated or anticipated limits,
- (b) the integrity of previously installed deep foundation units, or
- (c) the integrity of neighbouring structures and services.

Damaged deep
foundations

4.2.7.7. Where inspection shows that a deep foundation unit is damaged or not consistent with design or good engineering practice, the allowable load of such a unit shall be reassessed by the person responsible for the design, any necessary changes made and action taken as required.

SUBSECTION 4.2.8. SPECIAL FOUNDATIONS

Special
foundation
systems

4.2.8.1. Where special foundation systems are used, such systems shall conform to Subsection 4.2.4.

Use of existing
foundations

4.2.8.2. Existing foundations may be used to support new or altered buildings provided they comply with all pertinent requirements of Section 4.2.

SECTION 4.3 DESIGN REQUIREMENTS FOR STRUCTURAL MATERIALS

SUBSECTION 4.3.1. WOOD

4.3.1.1. Buildings and their structural members made of wood shall conform to CAN3-086, "Engineering Design in Wood" or CAN3-086.1, "Engineering Design in Wood--Limit States Design."

4.3.1.2. Glued-laminated members shall be fabricated in plants conforming to CSA 0177, "Qualification Code for Manufacturers of Structural Glued-Laminated Timber."

4.3.1.3. In areas known to be infested by termites, the requirements in Articles 9.3.2.9., 9.12.1.1., 9.15.5.1., 9.16.5.1. and 9.18.4.1. shall apply.

SUBSECTION 4.3.2. PLAIN AND REINFORCED MASONRY

4.3.2.1. Buildings and their structural members made of plain and reinforced masonry shall conform to CAN3-S304, "Masonry Design and Construction for Buildings."

SUBSECTION 4.3.3. PLAIN, REINFORCED AND PRESTRESSED CONCRETE

4.3.3.1. Buildings and their structural members made of plain, reinforced and prestressed concrete shall conform to CAN3-A23.3, "Design of Concrete Structures for Buildings."

SUBSECTION 4.3.4. STEEL

4.3.4.1. Buildings and their structural members made of structural steel shall conform to CAN3-S16.1, "Steel Structures for Buildings--Limit States Design."

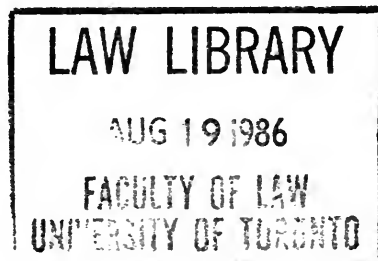
4.3.4.2. Buildings and their structural members made of cold formed steel shall conform to CAN3-S136, "Cold Formed Steel Structural Members."

SUBSECTION 4.3.5. ALUMINUM

4.3.5.1. Buildings and their structural members made of aluminum shall conform to CAN3-S157, "Strength Design in Aluminum."

SUBSECTION 4.3.6. AIR-SUPPORTED STRUCTURES

4.3.6.1. The structural design of air-supported structures shall conform to CAN3-S367, "Air Supported Structures."



PART 5

WIND, WATER AND VAPOUR PROTECTION

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PART 5 WIND, WATER AND VAPOUR PROTECTION

SECTION 5.1 GENERAL

SUBSECTION 5.1.1. SCOPE

5.1.1.1. The scope of this Part shall be as described in Section 2.1.

5.1.1.2. This Part applies to the design of a building assembly such as a wall, floor, roof, floor-ceiling combination or roof-ceiling combination with respect to the control of groundwater, condensation and the penetration of wind and rain.

5.1.1.3. The design and structural requirements of other Parts of this Code shall apply.

SECTION 5.2 CONTROL OF VAPOUR DIFFUSION

SUBSECTION 5.2.1. VAPOUR BARRIERS

5.2.1.1. Where a building assembly that would be adversely affected by condensation will be subjected to a temperature differential and a differential in water vapour pressure, the assembly shall have a continuous vapour barrier at a location that will prevent condensation within the assembly.

5.2.1.2.(1) Where a material or combination of materials that have a resistance to water vapour flow equivalent to that of a vapour barrier are used on the low vapour pressure side of the material that has the major thermal resistance in a building assembly

- (a) a continuous vapour barrier, for use in above-grade building construction, shall be installed on the high vapour pressure side, and
- (b) an air space ventilated to the outside or other method of equal effectiveness shall be provided for removing the water vapour that may pass from the high vapour pressure side through the material with the major thermal resistance.

SECTION 5.3 CONTROL OF AIR LEAKAGE

SUBSECTION 5.3.1. AIR BARRIERS

5.3.1.1.(1) Where a building assembly will be subjected to a temperature differential, a differential in water vapour pressure and a

differential in air pressure due to stack effect, mechanical systems or wind, the assembly shall be designed to provide an effective barrier to air exfiltration and infiltration, at a location that will prevent condensation within the assembly, through

- (a) the materials of the assembly,
- (b) joints in the assembly,
- (c) joints in components of the assembly, and
- (d) junctions with other building elements.

SECTION 5.4 CONTROL OF RAIN PENETRATION

SUBSECTION 5.4.1. JOINTS

5.4.1.1. Joints in exterior cladding and the junctions of different exterior claddings shall be constructed to minimize the entrance of rain water into the building assembly.

SUBSECTION 5.4.2. OPENINGS

5.4.2.1. An opening in an exterior wall or roof shall be so constructed as to prevent the entrance of rain or snow into the building.

SUBSECTION 5.4.3. ROOFING

5.4.3.1.(1) Roofing shall be installed so as to

- (a) shed or drain water effectively,
- (b) reduce the likelihood, when the roofing is comprised of overlapping units, of water backing up under the units due to ice damming or other cause, and
- (c) be resistant to damage due to wind.

SUBSECTION 5.4.4. PARAPETS

5.4.4.1.(1) Where the top of a wall is exposed to the weather

- (a) it shall be capped, and
- (b) a through-wall flashing shall be installed immediately under a segmented or pervious cap, and at such other points in the wall as are necessary to divert rainwater to the outside.

SUBSECTION 5.4.5. EXTERIOR WALL CLADDING

5.4.5.1. Exterior wall cladding shall be so installed that it sheds water to prevent its entry into other components of the building assembly. Where there is a likelihood of some penetration, drainage shall be provided to take water to the outside.

SECTION 5.5 CONTROL OF GROUNDWATER

SUBSECTION 5.5.1. THROUGH-WALL FLASHING

5.5.1.1. Where moisture from the ground can move upward into a wall and cause deterioration of the materials in the wall assembly, a through-wall flashing shall be installed in the wall below the materials likely to be so affected.

SUBSECTION 5.5.2. DAMPPROOFING AND WATERPROOFING

5.5.2.1. The portion of an exterior basement wall below ground level or any floor slab in contact with the ground shall be dampproofed or waterproofed as appropriate.

SUBSECTION 5.5.3. CRAWL SPACES

5.5.3.1. Crawl spaces shall be provided with a ground cover.

5.5.3.2. Unless groundwater levels and site conditions are such that water will not accumulate in the crawl space, the crawl space shall be sloped to drain to a sewer, ditch or dry well.

SECTION 5.6 MATERIALS

SUBSECTION 5.6.1. SPECIFICATIONS

5.6.1.1. Materials used for exterior claddings, vapour barriers, air barriers, flashings, thermal insulations or fastening devices shall comply with the appropriate standards listed in Part 2.

SUBSECTION 5.6.2. DETERIORATION

5.6.2.1. A material exposed to corrosive conditions shall be corrosion-resistant or shall be resistant to deterioration under those conditions.

SUBSECTION 5.6.3. FASTENING DEVICES

5.6.3.1. Fastening devices shall be made of a material which is compatible with the materials to be

so joined and shall be resistant to the type of corrosion likely to be present.

SECTION 5.7 PRACTICES

SUBSECTION 5.7.1. INSTALLATION

5.7.1.1. Exterior claddings, vapor barriers, air barriers, thermal insulations, sheathing papers, flashings and fastening devices shall be installed in such a manner as to effectively perform their intended functions.

5.7.1.2. Glass shall be designed and installed to resist the loads specified in Section 4.1.

5.7.1.3.(1) Exterior cladding shall be securely fastened to backing that is

(a) an integral structural element of a building,
or

(b) an element added to the structure for the purpose of supporting such exterior cladding.

(2) Backing for exterior cladding as provided for in Sentence (1) shall be suitably located, secured and of a kind suitable for the type of fasteners to be used for attachment.

5.7.1.4. Exterior cladding shall be designed, constructed and attached so as to accommodate stresses and deformations within the structure, the cladding system and all points of attachment caused by wind, earthquake and temperature effects.

PART 6

HEATING, VENTILATING AND AIR-CONDITIONING

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**PART 6 HEATING VENTILATING AND
AIR-CONDITIONING**

SECTION 6.1 GENERAL

SUBSECTION 6.1.1. SCOPE

6.1.1.1. The scope of this Part shall be as described in Section 2.1.

SUBSECTION 6.1.2. APPLICATION

6.1.2.1. This Part applies to systems and equipment for heating, ventilating and air-conditioning services.

SUBSECTION 6.1.3. DEFINITIONS

6.1.3.1. RESERVED.

SUBSECTION 6.1.4. PLANS AND SPECIFICATIONS

6.1.4.1. RESERVED.

SECTION 6.2 DESIGN AND INSTALLATION

SUBSECTION 6.2.1. GENERAL

Good engineering
practice

6.2.1.1. Heating, ventilating and air-conditioning systems shall be designed, constructed and installed to conform to good engineering practice appropriate to the circumstances such as described in

(a) the ASHRAE Handbooks as follows:

- (i) 1983 Equipment,
- (ii) 1984 Systems,
- (iii) 1985 Fundamentals, and
- (iv) 1986 Refrigeration Systems and Applications,

(b) the NFPA Fire Codes 1983,

(c) the HRAI Digest 1980,

(d) the Hydronics Institute Manuals 1982,

(e) the SMACNA Manuals, and

(f) the American Conference of Governmental Industrial Hygienists Industrial Ventilation Manual, 17th Edition 1982.

(2) Residential buildings intended for occupancy in the winter months on a continuing basis should be

insulated and shall be equipped with heating facilities capable of maintaining an indoor air temperature of 22°C at the outside winter design temperature described in Article 6.2.1.6.

(3) All other buildings intended for occupancy in the winter months on a continuing basis should be insulated and shall be equipped with heating facilities to maintain a minimum indoor air temperature of 18°C or commensurate with the use of the building at the outside winter design temperature described in Article 6.2.1.6.

6.2.1.2. Mechanical systems and equipment shall be designed and installed to accommodate the maximum amount of relative structural movement provided for in the construction of the building.

6.2.1.3. RESERVED.

Stoves, ranges
and space
heaters

6.2.1.4. The design and installation of solid-fuel burning stoves, ranges and space heaters shall conform to the requirements of Section 9.34.

6.2.1.5. Fireplaces shall conform to the requirements of Section 9.22.

Design
conditions

6.2.1.6. The outside conditions to be used in designing heating, ventilating and air-conditioning systems shall be determined in conformance with Subsection 2.5.1.

Access

6.2.1.7.(1) Equipment forming part of a heating, ventilating or air-conditioning system, with the exception of embedded pipes or ducts, shall be installed with provision for access for inspection, maintenance, repair and cleaning.

Guards

(2) Mechanical equipment shall be guarded to prevent injury to the public or maintenance staff.

Protection from
freezing

(3) Equipment forming part of a heating or air-conditioning system that may be adversely affected by freezing temperatures and that is located in an unheated area shall be protected from freezing.

Expansion and
contraction

6.2.1.8. Heating and cooling systems shall be designed to allow for expansion and contraction of the heat transfer fluid and to maintain the system pressure within the rated working pressure limits of all components of the system.

Asbestos in air
systems

6.2.1.9. Asbestos shall not be used in air distribution systems or equipment in a form or in a

location where asbestos fibres could enter the air supply or return systems.

6.2.1.10. Any covering of an access opening through which a person could enter shall be openable from the inside without the use of keys where there is a possibility of the opening being accidentally closed while the system or equipment is being serviced.

SUBSECTION 6.2.2. VENTILATION

6.2.2.1.(1) The ventilation of rooms or spaces by natural methods in residential occupancies shall conform to Section 9.33.

(2) The ventilation of rooms and spaces in occupancies other than residential occupancies by natural methods shall be permitted in lieu of mechanical ventilation where such ventilation will provide sufficient air change to provide healthful conditions in that occupancy.

(3) Self-contained mechanical ventilation systems, such as kitchen and bathroom exhaust fans, serving only 1 dwelling unit shall conform to the requirements of Section 9.33.

6.2.2.2.(1) Except as provided in Sentence (3), an enclosed storage garage and repair areas in a garage shall have a mechanical ventilation system designed to

- (a) limit the concentration of carbon monoxide to not more than 100 parts per million parts of air when measured between 900 mm and 1 200 mm from the floor, or
- (b) provide, during operating hours, a continuous supply of fresh air at a rate equal to at least 3.9 L/s for each square metre of floor area. (See also Sentences 3.3.1.14.(1) and 3.3.7.6.(4).)

(2) Mechanical ventilation systems provided in accordance with Clause (1)(a) shall be controlled automatically by carbon monoxide monitoring devices, located so as to provide full protection throughout the garage.

(3) In garages subject to the requirements of Sentence (1), where motor vehicles are parked by mechanical means, the ventilation requirements may be reduced by one half.

Garage
ventilation

(4) The requirements of Sentences (1) to (3) shall not apply to open-air storeys in a storage garage.

Air
contaminants

6.2.2.3.(1) Air contaminants released within buildings shall be removed insofar as possible at their points of origin and shall not be permitted to accumulate in unsafe concentrations.

Systems for
contaminated
spaces

(2) Systems serving spaces that contain sources of contamination shall be designed in such a manner as to prevent spreading of such contamination to other occupied parts of the building and surrounding areas.

Hazardous
gases, dusts
or liquids

(3) Systems serving spaces that contain hazardous gases, dusts or liquids such as grain elevators, metal powder plants and ammonium nitrate storage shall be designed, constructed and installed to conform to the requirements of the Ontario Fire Code made under the Fire Marshals Act, or in the absence of requirements pertinent to such systems in the Ontario Fire Code, to good engineering practice such as is described in the publications of the National Fire Protection Association and in the National Fire Code of Canada 1985.

Commercial
cooking
equipment

(4) Systems for the ventilation of restaurant and other commercial cooking equipment shall be designed, constructed and installed to conform to NFPA 96, "Installation of Equipment for the Removal of Smoke and Grease-Laden Vapors from Commercial Cooking Equipment", except as required by Sentence 3.5.3.1.(1) and Article 3.5.4.2.

SUBSECTION 6.2.3. AIR DUCT SYSTEMS

Scope

6.2.3.1. Where ducts serve a heating system with a rated heat input not exceeding 120 kW, the requirements of Subsection 6.2.4. shall apply in addition to those in this Subsection.

Duct
construction
materials

6.2.3.2.(1) Except as provided in Sentences (2) to (4) and in Article 3.5.4.3., all ducts, duct connectors, associated fittings and plenums used in air duct systems shall be constructed of steel, aluminum alloy, copper, clay, asbestos-cement or similar noncombustible material.

(2) Ducts, associated fittings and plenums may contain limited amounts of combustible material provided they

- (a) conform to the appropriate requirements for Class 1 duct materials in ULC-S110, "Standard for Air Ducts",

- (b) conform to Sentence 3.1.4.5.(4) and Subsection 3.1.7.,
- (c) are not used in vertical runs serving more than 2 storeys, and
- (d) are not used in air duct systems in which the air temperature may exceed 120°C.

(3) Duct sealants shall have a flame-spread rating of not more than 25 and a smoke developed classification of not more than 50.

(4) Duct connectors that contain combustible materials and that are used between ducts and air outlet units shall

- (a) conform to the appropriate requirements for Class 1 air duct materials in ULC-S110, "Standard for Air Ducts",
- (b) be limited to 4 m in length,
- (c) be used only in horizontal runs, and
- (d) not penetrate required fire separations.

Materials
subjected
to moisture

(5) Materials in Sentences (1) to (4) which when used in a location where they may be subjected to excessive moisture shall have no appreciable loss of strength when wet and shall be corrosion-resistant.

Access opening

6.2.3.3.(1) Air duct systems shall be made substantially air tight throughout, and shall have no openings other than those required for proper operation and maintenance of the system.

(2) Access openings shall be provided in duct systems where lint, grease, debris, paper or other combustible material may accumulate in plenums and ducts.

Vibration
isolation
connectors

6.2.3.4.(1) Vibration isolation connectors in air duct systems shall be noncombustible, except that combustible fabric connectors are permitted provided they

- (a) do not exceed 250 mm in length,
- (b) comply with the flame-resistance requirements of ULC-S109, "Standard for Flame Tests of Flame-Resistant Fabrics and Films", and
- (c) are not used in a location where they are exposed to heated air or radiation from heat

sources that may cause the exposed surface to exceed a temperature of 120°C.

Joint tape

6.2.3.5 Tape used for sealing joints in air ducts, plenums and other parts of air duct systems shall meet the flame-resistance requirements for fabric in ULC-S109, "Standard for Flame Tests of Flame-Resistant Fabrics and Films".

Coverings and linings

6.2.3.6.(1) Coverings, linings and associated adhesives and insulation of air ducts, plenums and other parts of air duct systems shall be of noncombustible material when exposed to heated air or radiation from heat sources that would result in the exposed surface exceeding a temperature of 120°C.

(2) When combustible coverings and linings, including associated adhesives and insulation, are used, they shall have a flame-spread rating of not more than 25 on any exposed surface or any surface that would be exposed by cutting through the material in any direction, and a smoke developed classification of not more than 50, except that the outer covering of ducts, plenums and other parts of air duct systems used within an assembly of combustible construction may have an exposed surface flame-spread rating of not more than 75 and may have a smoke developed classification greater than 50.

(3) Combustible coverings and linings in Sentence (2) shall not flame, glow, smoulder or smoke when tested in accordance with the method of test in ASTM C411, "Hot-Surface Performance of High-Temperature Thermal Insulation" at the maximum temperature to which the coverings and linings are to be exposed in service.

(4) Except as provided in Sentence (5), foamed plastic insulation shall not be used as part of an air duct or for insulating an air duct.

(5) Foamed plastic insulation may be used in a ceiling space that acts as a return air plenum provided the foamed plastic insulation is protected from exposure to the plenum in accordance with Sentence 3.1.4.5.(2).

(6) Combustible coverings and linings of ducts, including associated adhesives and insulation, shall be interrupted at the immediate area of operation of heat sources in a duct system, such as electric resistance heaters or fuel-burning heaters or furnaces, and where the duct penetrates a fire separation.

(7) Linings of ducts shall be installed so that they will not interfere with the operation of fire dampers, fire stop flaps and other closures.

Underground
ducts

6.2.3.7. Underground ducts shall be constructed to provide interior drainage from and access to all low points and shall not be connected directly to a sewer.

Clearances

6.2.3.8. The clearances from combustible material and supply plenums, supply ducts, boots and register boxes of heating systems shall conform to the requirements of Subsection 6.2.4.

Fire dampers

6.2.3.9. Fire dampers shall conform to the requirements of Article 3.1.6.6.

Exhaust ducts

6.2.3.10.(1) Except as provided in Sentence (2), exhaust ducts of nonmechanical ventilating systems serving separate rooms or spaces shall not be combined.

(2) Exhaust ducts of nonmechanical ventilating systems serving similar occupancies may be combined immediately below the point of final delivery to the outside, such as at the base of a roof ventilator.

(3) Exhaust ducts of ventilating systems shall have provision for the removal of condensation where this may be a problem.

(4) Exhaust outlets shall be designed to prevent back draft under wind conditions.

(5) Except as provided in Sentence (7), exhaust ducts serving rooms containing water closets, urinals, basins, showers or slop sinks shall be independent of exhaust ducts serving other areas of the building.

(6) Except as provided in Sentence (7), exhaust ducts serving rooms containing residential cooking equipment shall be independent of exhaust ducts serving other areas of the building.

(7) Two or more exhaust systems in Sentences (5) and (6) may be interconnected or connected with exhaust ducts serving other areas of the building provided the connections are made at the inlet of an exhaust fan and all interconnected systems are equipped with suitable back pressure devices to prevent passage of odours from one system to another when the fan is not in operation.

(8) Where exhaust ducts containing air from heated spaces pass through or are adjacent to unheated spaces, the ducts shall be insulated to prevent moisture condensation in the duct.

Air
circulation

6.2.3.11.(1) In a residential occupancy, air from one suite shall not be circulated to any other suite nor to a public corridor or public stairway.

(2) Except for Sentence (3), a public corridor shall not be used as a portion of a supply, return or exhaust air system serving adjoining areas, other than as part of a supply air system serving toilet rooms, bathrooms, shower rooms and similar auxiliary spaces opening directly to the public corridor.

(3) A public corridor may be used as part of an engineered smoke control system.

Make-up air

6.2.3.12.(1) Provision shall be made in ventilating systems that exhaust air to the outdoors for the admission of a supply of make-up air in sufficient quantity so that the efficiency of the exhaust system is not adversely affected.

Air openings

(2) Supply, return and exhaust air openings in rooms or spaces in buildings when located less than 2 m above the floor shall be protected by grilles having openings of a size that will not allow the passage of a 15 mm diam sphere.

(3) Combustible grilles, diffusers and other devices for supply-, return- and exhaust-air openings in rooms shall conform to the flame-spread rating and smoke developed classification requirements for the interior finish of the surface on which they are installed.

(4) Outdoor air intakes and exhaust outlets at the building exterior shall be designed or located so that the air entering the building system will not contain more contaminants than the normal exterior air of the locality in which the building is situated.

(5) Exterior openings for outdoor air intakes and exhaust outlets shall be shielded from the entry of snow and rain and shall be fitted with corrosion-resistant screens of mesh not larger than 15 mm, except where climatic conditions may require larger openings.

(6) Screens required in Sentence (5) shall be accessible for maintenance.

Air filters	6.2.3.13.(1) Air filters for air duct systems shall conform to the requirements for Class 2 air filter units as described in CAN4-S111, "Standard Method of Fire Tests For Air Filter Units".
Air washers	(2) The filter and water evaporation medium of every air washer and evaporative cooling section enclosed within a <u>building</u> shall be made of <u>noncombustible</u> material.
Sumps	(3) Sumps for air washer and evaporative cooling sections shall be constructed and installed so that they can be flushed and drained.
Evaporative cooling equipment	(4) Evaporative cooling sections or towers of <u>combustible</u> material located on or outside <u>buildings</u> shall have a clearance of at least 12 m from sources of ignition such as <u>chimneys</u> or incinerators when the tower exterior construction is <u>noncombustible</u> , and a clearance of at least 30 m when the tower exterior construction is <u>combustible</u> . (5) Evaporative cooling sections or towers the main structure of which exceeds a volume of 55 m ³ shall comply with the requirements of NFPA 214, "Water-Cooling Towers".
Electrostatic filters	(6) Electrostatic-type filters when used shall be installed to ensure that the electric circuit is automatically de-energized when access doors are opened. (7) Facilities for flushing and drainage shall be provided where filters are designed to be washed in place.
Odour removal equipment	(8) When odour removal equipment of the adsorption type is used it shall be (a) installed to provide access so that adsorption material can be reactivated or renewed, and (b) protected from dust accumulation by air filters installed on the inlet side.
Fans	6.2.3.14.(1) Fans for heating, ventilating and air-conditioning systems shall be located and installed so that their operation (a) does not adversely affect the draft required for proper operation of fuel-fired <u>appliances</u> , and

(b) does not allow the air in the air duct system to be contaminated by air or gases from the boiler-room or furnace-room.

Equipment
installation
outdoors

(2) Fans and associated air handling equipment, such as air washers, filters and heating and cooling units, when installed on the roof or elsewhere outside the building, shall be of a type designed for outdoor use.

SUBSECTION 6.2.4. AIR DUCTS FOR LOW CAPACITY HEATING SYSTEMS

Design,
construction and
installation

6.2.4.1. The design, construction and installation of air duct distribution systems serving heating systems in which the rated heat input does not exceed 120 kW shall conform to this Subsection and Subsection 6.2.3.

Duct thickness

6.2.4.2.(1) Galvanized steel or aluminum supply ducts shall conform to Table 6.2.4.A.

(2) Rectangular panels in plenums and ducts greater than 300 mm wide shall be shaped to provide sufficient stiffness.

Table 6.2.4.A.
Forming Part of Sentence 6.2.4.2.(1)

MINIMUM METAL THICKNESS OF DUCTS, mm			
Shape and Location of Duct	Size of Duct, mm	Galvanized Steel	Aluminum
All round ducts and enclosed rectangular ducts	350 or under over 350	0.33 0.41	0.30 0.41
Exposed rectangular ducts having a required clearance of up to 12 mm and serving single <u>dwelling units</u>	350 or under over 350	0.33 0.41	0.41 0.48
Other exposed rectangular ducts	350 or under over 350	0.41 0.48	0.41 0.48
Column 1	2	3	4

(3) Where the installation of heating supply ducts in walls and floors creates a space between the duct and construction material, the space shall be fire stopped with noncombustible material at each end.

- Duct supports (4) Ducts shall be securely supported by metal hangers, straps, lugs or brackets, except that where zero clearance is permitted, wooden brackets may be used.
- Pipe joints (5) All round pipe joints shall be lapped not less than 25 mm and shall have a snug fit without undue crimping or distortion.
- Rectangular duct connections (6) Rectangular duct connections shall be made with S and drive cleats or equivalent mechanical connections.
- (7) Trunk ducts shall not be nailed directly to wood members.
- (8) Branch pipes shall be supported at suitable spacings to maintain alignment and prevent sagging.
- (9) Combustible ducts in concrete slabs-on-ground that are connected to a furnace supply plenum shall be located not closer than 600 mm from that plenum and not less than 600 mm from its connection to a riser or register.
- (10) Ducts in or beneath concrete slabs-on-ground shall be watertight, corrosion-, decay- and mildew-resistant.
- (11) Where a supply or return duct is not protected by an insulated exterior wall or where the duct is exposed to an unheated space it shall be insulated to provide a thermal resistance of not less than RSI 2.1.
- Minimum clearance of furnace plenums 6.2.4.3.(1) RESERVED.
- Clearance of supply ducts (2) Where the plenum clearance is 75 mm or less, the clearance between a supply duct and combustible material shall
- (a) be equal to the required plenum clearance within 450 mm of the plenum, and
 - (b) be not less than 12 mm at a distance of 450 mm or more from the plenum, except that this clearance may be reduced to zero beyond a bend or offset in the duct sufficiently large to shield the remainder of the duct from direct radiation from the furnace heat exchanger.

(3) Where the plenum clearance is more than 75 mm but not more than 150 mm, the clearance between a supply duct and combustible material shall

- (a) be equal to the required plenum clearance within a horizontal distance of 1.8 m of the plenum, and
- (b) be at least 12 mm at a horizontal distance of 1.8 m or more from the plenum, except that this distance may be reduced to zero beyond a bend or offset in the duct sufficiently large to shield the remainder of the duct from direct radiation from the furnace heat exchanger.

(4) Where the plenum clearance is more than 150 mm, the clearance between a supply duct and combustible material shall

- (a) be equal to the required plenum clearance within a horizontal distance of 1 m of the plenum,
- (b) be at least 150 mm within a horizontal distance between 1 and 1.8 m from the plenum, and
- (c) be at least 25 mm at a horizontal distance of 1.8 m or more from the plenum, except that this distance may be reduced to 8 mm beyond a bend or offset in the duct sufficiently large to shield the remainder of the supply duct from direct radiation from the furnace heat exchanger.

Register over
pipeless furnace

(5) Where a register is installed in a floor directly over a pipeless furnace, a double-walled register box with not less than 100 mm between walls, or a register box with the warm-air passage completely surrounded by the cold-air passage, shall be permitted in lieu of the clearances listed in Sentences (2), (3) and (4).

Supply outlet
required

6.2.4.4.(1) A warm-air supply outlet shall be provided in each finished room in a dwelling unit. When rooms are located adjacent to exterior walls, such outlets shall be located so as to bathe at least 1 exterior wall or window with warm air, except in bathrooms, utility rooms or kitchens, where this may not be practical.

Supply outlet
in basement

(2) At least 1 warm-air supply outlet shall be provided for each 40 m² of floor surface area in unfinished basements serving dwelling units, located

so as to provide adequate distribution of warm air throughout the basement.

Supply outlet
in crawl space

(3) In crawl spaces used as warm air plenums, at least 4 supply outlets shall be provided and located to direct the air towards the corners of such crawl spaces.

Furnace
capacity

(4) Ducts for outlets in crawl spaces used as warm air plenums shall be not less than 1.8 m in length.

(5) Except for pipeless furnaces and floor furnaces, the capacity of warm-air supply outlets serving dwelling units shall be not less than the design heat loss from the area served and shall not exceed 3 kW per outlet.

(6) In basements and heated crawl spaces, the calculated heat gain from the supply ducts and plenum surfaces may be considered in calculating the design heat loss.

(7) Warm-air heating systems shall not be interconnected with a garage and other portions of a building.

Temperature
of supply air

(8) The temperature of supply air at the warm-air supply outlets shall not exceed 70°C.

Slab
installation
of supply
systems

(9) Except for basements, warm-air supply systems for residential buildings built on concrete slabs-on-ground shall be installed in the slab and shall be of the perimeter loop type or radial perimeter type.

Design of
fittings for
ducts

(10) The design of fittings for ducts shall conform to CSA B228.1, "Pipes, Ducts, and Fittings for Residential Type Air Conditioning Systems", except that metal thickness requirements shall conform to those in Table 6.2.4.A.

Diffusers for
supply outlets

(11) Warm-air supply outlets located in finished areas shall be provided with diffusers and adjustable openings and shall not be located on a furnace plenum.

Adjustable
dampers

(12) All branch supply ducts which are not fitted with diffusers with adjustable balance stops shall be supplied with adjustable dampers and fitted with devices to indicate the positions of the dampers.

Return air
system

6.2.4.5.(1) The return-air system shall be designed to handle the entire air supply.

Fire resistance of return ducts	(2) Except as provided in Sentences (3) and (4), <u>return ducts</u> shall be constructed of material having a surface <u>flame-spread rating</u> of not more than 150.
	(3) Where any part of a <u>return duct</u> will be exposed to radiation from the <u>furnace</u> heat exchanger or other radiating part within the <u>furnace</u> , such part of a <u>return duct</u> directly above or within 600 mm of the outside <u>furnace</u> casing shall be <u>noncombustible</u> .
	(4) Return ducts serving solid-fuel fired <u>furnaces</u> shall be constructed of <u>noncombustible</u> material.
Lining of return ducts	(5) <u>Combustible</u> return ducts shall be lined with <u>noncombustible</u> material below floor registers, at the bottom of vertical ducts and under <u>furnaces</u> having a bottom return.
Spaces used as return ducts	(6) Spaces between studs used as <u>return ducts</u> shall be separated from the unused portions of such spaces by tight-fitting metal stops or wood blocking.
Vertical return ducts	(7) A vertical <u>return duct</u> shall have openings to return air on not more than 1 floor.
Return air plenum	(8) A <u>public corridor</u> shall comply with Sentences 6.2.3.11.(2) and (3).
Negative pressure	(9) The return-air system shall be designed so that the negative pressure from the circulating fan cannot affect the <u>furnace</u> combustion air supply nor draw combustion products from joints or openings in the <u>furnace</u> or <u>flue pipe</u> .
Return air inlets	(10) Return-air inlets shall not be located in a garage or an enclosed <u>furnace</u> room or in a crawl space that has a <u>furnace</u> installed in it.
	(11) RESERVED.
Recirculation of return air	(12) Return air from a <u>dwelling unit</u> shall not be recirculated to any other <u>dwelling unit</u> .
Return air inlets required	(13) At least 1 return-air inlet shall be provided in each <u>storey</u> in each <u>dwelling unit</u> .
Provisions for the return of air	(14) Provision shall be made for the return of air from all rooms by leaving gaps beneath doors, using louvred doors or installing <u>return duct</u> inlets.
Ceiling assembly used as plenum	(15) Except for a return-air <u>plenum</u> located within a <u>dwelling unit</u> , where a ceiling assembly is used as a <u>plenum</u> , the requirements of Subsection 6.2.3. shall apply for such system.

SUBSECTION 6.2.5. HEATING APPLIANCES, GENERAL

Enclosures and
separations

6.2.5.1.(1) Fuel-fired heating appliances shall be located, enclosed or separated from the remainder of the building in conformance with Section 3.5.

Outdoor
installation of
appliances

(2) Fuel-fired appliances installed on the roof of a building or otherwise outside the building shall be

- (a) designed for outdoor use,
- (b) installed not closer than 1.2 m from the property line, measured horizontally, and
- (c) installed at least 3 m from an adjacent wall of the same building when such wall contains an opening or openings within 3 storeys above and 5 m horizontally from the appliance, unless such openings are protected by a closure assembly having a $\frac{3}{4}$ h fire-protection rating determined in conformance with Article 3.1.6.4., or by wired glass conforming to Article 3.1.6.10.

Chimney
connection

(3) Heating appliances using solid fuel shall be connected to a chimney directly or by a flue pipe or breeching conforming to Section 6.3.

SUBSECTION 6.2.6. INCINERATORS

6.2.6.1. The design, construction, installation and alteration of every indoor incinerator shall conform to NFPA 82, "Incinerators, Waste and Linen Handling Systems and Equipment".

Chimney flue

6.2.6.2. Every incinerator shall be served by a chimney flue conforming to Section 6.3.

SUBSECTION 6.2.7. UNIT HEATERS

6.2.7.1. Every unit heater using either steam or hot water as the heating medium shall be installed with a clearance of at least 25 mm between the appliance and adjacent combustible material.

SUBSECTION 6.2.8. RADIATORS AND CONVECTORS

6.2.8.1. Every steam or hot water radiator and convector located in a recess or concealed space or attached to the face of a wall of combustible construction shall be provided with a noncombustible lining or backing.

SUBSECTION 6.2.9. PIPING FOR HEATING AND COOLING SYSTEMS

6.2.9.1. Piping shall be made from materials designed to withstand the effects of temperatures and pressures that may occur in the system.

Expansion and contraction

6.2.9.2. Every pipe used in a heating or air-conditioning system shall be installed to allow for expansion and contraction due to temperature changes.

Supports and anchors

6.2.9.3. Supports and anchors for piping in a heating or air-conditioning system shall be designed and installed to ensure that undue stress is not placed on the supporting structure.

Insulation and coverings

6.2.9.4.(1) Insulation and coverings on pipes shall be composed of material suitable for the operating temperature of the system to withstand deterioration from softening, melting, mildew and mold.

(2) Insulation and coverings on pipes in which the temperature of the fluid exceeds 120°C

- (a) shall be made of noncombustible material, or
- (b) shall not flame, glow, smoulder or smoke when tested in accordance with the method of test ASTM C411, "Hot-Surface Performance of High-Temperature Thermal Insulation", at the maximum temperature to which such insulation or covering is to be exposed in service.

(3) Except as provided in Sentence (7), where combustible insulation is used on piping in a horizontal or vertical service space, the insulation and coverings on such pipes shall have a flame-spread rating throughout the material not exceeding 25 in buildings of noncombustible construction and not exceeding 75 in buildings of combustible construction.

(4) Except as provided in Sentence (7), insulation and coverings on piping located in rooms and spaces other than the service spaces described in Sentence (3) shall have a flame-spread rating not exceeding that required for the interior finish for the ceiling of the room or space.

(5) Except as provided in Sentence (7), where combustible insulation and covering is used on piping in buildings described in Subsection 3.2.6., they

shall have a smoke developed classification of not more than 100.

(6) Pipes that are exposed to human contact shall be insulated so that the exposed surface does not exceed 70°C.

Concealed or
protected
piping

(7) No flame-spread rating or smoke developed classification limitations are required where combustible insulation and coverings are used on piping when such piping is

(a) located within a concealed space in a wall,

(b) located in a floor slab, or

(c) enclosed in a noncombustible raceway or conduit.

Clearances

6.2.9.5. Clearances between combustible material and bare pipes carrying steam or hot water shall conform to Table 6.2.9.A.

Table 6.2.9.A.
Forming Part of Article 6.2.9.5.

Steam or Water Temperature, °C	Minimum Clearance, mm
up to 120	15
above 120	25
Column 1	2

Sleeves

6.2.9.6.(1) Where a pipe carrying steam or hot water at a temperature in excess of 120°C passes through a combustible floor, ceiling or wall, the construction shall be protected by a sleeve of metal or other noncombustible material at least 50 mm larger in diameter than the pipe.

Pipes in
storage spaces

(2) Unprotected steam or hot water pipes that pass through a storage space shall be covered with at least 25 mm of noncombustible insulation to prevent direct contact with the material stored.

Pipes in
shafts

6.2.9.7. Where piping for heating or air-conditioning systems is enclosed in a shaft, the requirements of Article 3.5.3.1. for shafts shall apply.

SUBSECTION 6.2.10. REFRIGERATING SYSTEMS AND EQUIPMENT FOR AIR-CONDITIONING

Cooling units
combined with
furnaces

6.2.10.1.(1) Where a cooling unit is combined with a fuel-fired furnace in the same duct system, the cooling unit shall be installed

- (a) in parallel with the heating furnace,
- (b) upstream of the furnace provided the furnace is designed for such application, or
- (c) downstream of the furnace provided the cooling unit is designed to prevent excessive temperature or pressure in the refrigeration system.

SUBSECTION 6.2.11. STORAGE BINS

Pipes in
storage bins

6.2.11.1.(1) Service pipes passing through a storage bin for solid fuel shall be protected or so located as to avoid damage to the pipes.

(2) Except for fuel-thawing pipes, every pipe designed to operate at a temperature of 50°C or more shall be located where fuel cannot be stored in contact with it.

(3) A storage bin for solid fuel shall not be located above a sewer opening or drain opening.

(4) Solid fuels shall not be stored where the air temperature in the bin or the surface temperature of any part of the floor or walls is 50°C or more.

Construction of
ash bins

6.2.11.2.(1) Every ash storage bin shall be constructed of noncombustible material and, where the bin is not covered, the ceiling of the room in which it is located shall be of noncombustible material.

(2) Every opening in an ash storage bin shall be protected by a tight-fitting metal door with metal frame securely fastened to the bin.

SECTION 6.3 CHIMNEYS AND VENTING EQUIPMENT

SUBSECTION 6.3.1. GENERAL

Scope

6.3.1.1.(1) This Subsection applies to the construction and installation of masonry or concrete chimneys, metal chimneys and chimney flues serving all fuel-fired appliances.

(2) The venting of fuel-burning appliances, other than solid-fuel burning stoves, ranges or space heaters, shall conform to Sentence 6.2.1.3.(1).

(3) Every chimney shall be capable of providing sufficient draft to vent the appliance that it serves.

(4) Every chimney shall be lined with material suitable to resist the temperature and corrosion conditions it will encounter in service.

(5) The walls of any chimney, gas vent or flue pipe shall be constructed so as to be gas-, smoke- and flame-tight.

Clearance of chimney tops

(6) The top of every chimney shall be at least

(a) 900 mm above the highest point at which it comes in contact with the roof, and

(b) 600 mm above a roof surface or structure within a horizontal distance of 3 m from the chimney.

Design loads

(7) Every chimney shall be designed and constructed to resist the forces due to its weight and the effects of wind, earthquakes and temperature in conformance with the appropriate requirements in Part 4.

Foundations

(8) Masonry or concrete chimneys or metal chimneys shall be supported on foundations that are in conformance with the appropriate requirements in Part 4.

Provision for cleaning

6.3.1.2.(1) Every masonry or concrete chimney shall be provided with a clean-out opening located at the base of the flue and equipped with a metal frame and tight-fitting metal door.

(2) Except for a factory-built chimney located directly above a solid-fuel burning appliance, every factory-built chimney serving a solid-fuel burning appliance shall be provided with an accessible tee section to facilitate cleaning the chimney.

(3) Where a chimney is of a size requiring entry for cleaning, the cleanout opening shall be at least 600 mm by 900 mm.

Lightning protection

6.3.1.3. RESERVED.

Access ladders

6.3.1.4.(1) Access ladders for chimneys, when provided, shall consist of steel or bronze rungs, built into the walls of the chimneys.

(2) In the case of external ladders, rungs shall begin at not less than 2.5 m from ground level.

SUBSECTION 6.3.2. CLEARANCES AND SEPARATIONS

6.3.2.1.(1) The clearance between masonry or concrete chimneys and combustible framing shall be at least 50 mm for interior chimneys and 12 mm for exterior chimneys.

(2) The clearance between a cleanout opening for a masonry or concrete chimney and combustible material shall be at least 150 mm.

(3) Spaces between chimneys and floor or ceiling assemblies shall be fire stopped with noncombustible material.

(4) Where floor or ceiling assemblies have wood framing members, the fire stopping required in Sentence (3) shall not exceed 25 mm in depth.

(5) The clearance between masonry or concrete chimneys and flooring shall be at least 12 mm.

Clearances for
metal chimneys

6.3.2.2.(1) The minimum clearance between an exterior metal chimney and

(a) combustible material shall be 900 mm,

(b) an opening in a wall or a means of egress shall be 1.8 m,

(c) a masonry or concrete wall shall be 100 mm.

(2) Except as provided in Sentence (3), every interior metal chimney shall have a clearance of at least 900 mm to combustible material within the storey in which the heating appliance is contained.

(3) Where a metal chimney passes through a combustible roof assembly, the clearance between the chimney and the nearest combustible material may be reduced to 300 mm provided the metal chimney is guarded by a metal thimble extending at least 230 mm above and 230 mm below the roof construction.

(4) Thimbles required in Sentence (3) shall have double cylindrical walls with a ventilated space between the walls and between the metal chimney and

thimble, and the clearance between the metal thimble and combustible material shall be at least 150 mm.

Enclosures

6.3.2.3.(1) Every interior metal chimney that passes through more than 1 storey or through an attic or roof space shall be enclosed above the room in which the heating appliance is located by a noncombustible fire separation extending through the roof having a fire-resistance rating of at least 4 h.

(2) Fire-resistance ratings required in Sentence (1) shall apply to the enclosure only and not to its supporting structure.

(3) The space between the enclosing fire separation and the metal chimney shall be

- (a) sufficient to permit examination and repair of the chimney,
- (b) ventilated to the outside air at the top, and
- (c) provided with suitable air inlets below the required fire separation.

PART 7

RESERVED

PART 8

RESERVED

PART 9

HOUSING AND SMALL BUILDINGS

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**PART 9 HOUSING AND SMALL
BUILDINGS**

SECTION 9.1 GENERAL

SUBSECTION 9.1.1. SCOPE

Scope

9.1.1.1. The scope of this Part shall be as described in Section 2.1.

9.1.1.2. Signs shall conform to the requirements in Section 3.8.

9.1.1.3. Self-service storage buildings shall conform to the requirements in Section 3.10.

9.1.1.4. Tents and air-supported structures shall conform to the requirements in Article 3.1.4.6.

SECTION 9.2 RESERVED.

SUBSECTION 9.2.1. GENERAL

Words in italics

9.2.1.1. Words in italics are defined in Part 1.

**SECTION 9.3 MATERIALS, SYSTEMS AND
EQUIPMENT**

Assessment of
materials,
systems and
equipment

9.3.0.1. Materials, appliances, systems and equipment not specifically described herein, or which vary from the specific requirements in this Part, or for which no recognized test procedure has been established, may be used if it can be shown that the material, system or equipment is suitable on the basis of past performance or on the basis of tests described in Article 9.3.0.2.

Where no
published
test methods
exist

9.3.0.2. Where no published test method exists, the test shall be designed to simulate or exceed anticipated service conditions or shall be designed to compare the performance of the material, system or equipment with similar material, system or equipment that is known to be acceptable.

SUBSECTION 9.3.1. CONCRETE

Design criteria

9.3.1.1. Concrete shall be designed, mixed, placed, cured and tested in accordance with CAN3-A438, "Concrete Construction for Housing and Small Buildings".

Sulphate soils

9.3.1.2. Cement shall meet the requirements of CAN3-A5, "Portland Cements". Sulphate-resisting cement shall be used for concrete in contact with

sulphate soil deleterious to normal cement. Such concrete shall conform to the requirements in Section 16 of CAN3-A23.1, "Concrete Materials and Methods of Concrete Construction".

Aggregate

9.3.1.3. Aggregates shall consist of sand, gravel, crushed rock, crushed air-cooled blast furnace slag, expanded shale or expanded clay conforming to CAN3-A23.1, "Concrete Materials and Methods of Concrete Construction". Aggregate shall be clean, well-graded and free of injurious amounts of organic and other deleterious material.

Water

9.3.1.4. Water shall be clean and free of injurious amounts of oil, organic matter, sediment or any other deleterious material.

Compressive strength

9.3.1.5. Unless otherwise specifically required elsewhere in this Part, the compressive strength of unreinforced concrete shall be not less than 15 MPa after 28 days.

9.3.1.6. When concrete is used for garage and carport floors and exterior steps, it shall have a minimum compressive strength of 25 MPa after 28 days and shall have air entrainment of 5 to 8 per cent.

Concrete mix

9.3.1.7. The concrete mixes described in Table 9.3.1.A shall be considered acceptable if the slump does not exceed 100 mm when measured according to the slump test described in CAN3-A23.2, "Methods of Test for Concrete". Aggregate shall not exceed 50 mm in size.

Table 9.3.1.A
Forming Part of Article 9.3.1.7.

CONCRETE MIXES, BY VOLUME			
Concrete Strength, MPa	Cement, parts	Sand, parts	Coarse Aggregate, parts
15	1	2	4
	1	---	6, pit run gravel
20	1	1 3/4	3, up to 40 mm in size
	1	---	4 3/4, pit run gravel
Column 1	2	3	4

Admixtures	9.3.1.8. Admixtures shall conform to CAN3-A266.1, "Air Entraining Admixtures for Concrete" or CAN3-A266.2, "Chemical Admixtures for Concrete", as applicable.
Reinforced concrete design	9.3.1.9. Reinforced concrete shall be designed to conform to the requirements of Part 4.
Cold weather requirements	9.3.1.10. When the air temperature is below 5°C, concrete shall be kept at a temperature of not less than 10°C or more than 25°C while being mixed and placed, and maintained at a temperature of not less than 10°C for 72 h after placing. No frozen material or ice shall be used in the mix.
SUBSECTION 9.3.2. LUMBER AND WOOD PRODUCTS	
Grade marking	9.3.2.1. Lumber for joists, rafters, trusses and beams and for the uses listed in Table 9.3.2.A. shall be identified by a grade stamp to indicate its grade as determined by the NLGA "Standard Grading Rules for Canadian Lumber".
	9.3.2.2. Except for joists, rafters, trusses and beams, visually graded lumber shall conform to the grades in Table 9.3.2.A.
	9.3.2.3. Machine stress rated lumber shall conform to the requirements of Subsection 4.3.1.
	9.3.2.4. Waferboard and plywood used for roof sheathing, wall sheathing and subflooring shall be legibly identified on the face of the material indicating the manufacturer of the material, the standard to which it is produced and that the material is of an exterior type.
Moisture content	9.3.2.5. Moisture content of lumber shall be not greater than 19 per cent at the time of installation.
	9.3.2.6. Lumber dimensions referred to in this part are actual dimensions determined in conformance with CSA 0141, "Softwood Lumber".
	9.3.2.7. The thicknesses specified in this Part for plywood, hardboard, particleboard and waferboard shall be subject to the tolerances permitted in the standards referenced for these products unless specifically indicated herein.
	9.3.2.8. Joist, rafter, lintel and beam members up to 5 per cent less than the actual Canadian standard

Table 9.3.2.A.
Forming Part of Articles 9.3.2.1. and 9.3.2.2.

MINIMUM LUMBER GRADES FOR SPECIFIC END USES				
Use	BOARDS			FRAMING
	Paragraph in the NLGA grading rules under which boards are graded			All species
	All species		Eastern White Pine & Red Pine	
	Para 113	Para 114	Para 118	
Stud wall framing (loadbearing members)	---	---	---	Standard, Stud, No. 2
Stud wall framing (non-loadbearing members)	---	---	---	Stud, Utility No. 3
Plank frame construction (loadbearing members)	No. 3 Common	---	No. 3 Common	No. 2
Plank frame construction (non-loadbearing members)	No. 5 Common	---	No. 5 Common	Economy. No. 3
Posts and beams less than 114 mm in thickness	---	---	---	Standard, No. 2
Posts and beams at least 114 mm in thickness	---	---	---	Standard
Roof sheathing	No. 3 Common	Standard	No. 4 Common	---
Subflooring	No. 3 Common	Standard	No. 3 Common	---
Wall sheathing when required as a nailing base	No. 4 Common	Utility	No. 4	---
Wall sheathing not required as a nailing base	No. 5 Common	Economy	No. 5	---
Column 1	2	3	4	5

sizes may be used provided the allowable spans for the grade and species of lumber under consideration are reduced 5 per cent from those shown in the span tables for full size members.

9.3.2.9. Where wood is pressure treated to resist termites, such treatment shall be in accordance with the requirements of one of the following standards:

CSA 080.1, "Preservative Treatment of All Timber Products by Pressure Processes",

CSA 080.2, "Preservative Treatment of Lumber, Timber, Bridge Ties and Mine Ties by Pressure Processes",

CSA 080.9, "Preservative Treatment of Plywood by Pressure Processes", or

CSA 080.15, "Preservative Treatment of Wood for Building Foundation Systems,

Basements and Crawl Spaces by Pressure Processes".

9.3.2.10. On site cross-cutting of a piece of lumber shall not be considered to affect the grade.

SUBSECTION 9.3.3. METAL

9.3.3.1. Minimum thicknesses for sheet metal material given in this Part refer to the actual minimum thicknesses measured at any point of the material, and in the case of galvanized steel, includes the thickness of the coating unless otherwise indicated.

9.3.3.2. Where galvanized sheet metal is intended for use in locations exposed to the weather or as a flashing material, it shall have a zinc coating at least equal to the G90 coating designation in ASTM A525, "Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process".

SECTION 9.4 STRUCTURAL REQUIREMENTS

SUBSECTION 9.4.1. GENERAL

9.4.1.1. Except as provided in Article 9.4.1.2. and in Subsections 9.4.2. to 9.4.4., structural members and their connections shall be designed in conformance with Part 4.

9.4.1.2. Where structural members and their connections conform to the requirements listed

elsewhere in this Part, it shall be deemed that the structural design requirements have been met.

Snow loads

SUBSECTION 9.4.2. SNOW LOADS

9.4.2.1. This Subsection applies to wood frame assemblies with clear spans not exceeding 12.20 m and members spaced not more than 600 mm apart.

9.4.2.2. Except as provided in Articles 9.4.2.3. and 9.4.2.4., design snow loads shall be not less than 60 per cent of the appropriate ground snow load listed in Chapter 1 of the Supplement to the NBC 1985, but in no case shall the design snow load be less than 1 kPa.

9.4.2.3. Where the entire width of a roof does not exceed 4.3 m, the design snow load shall be not less than 50 per cent of the appropriate ground snow load listed in Chapter 1 of the Supplement to the NBC 1985, but in no case shall the design snow load be less than 1 kPa.

9.4.2.4. Bow string, arch or semi-circular roof trusses having an unsupported span greater than 6 m shall be designed in conformance with the snow load requirements in Section 4.1.

Residential balconies

9.4.2.5. Residential balconies not used as passageways shall be designed to carry the design roof snow load or 1.9 kPa, whichever is greater.

SUBSECTION 9.4.3. DEFLECTIONS

Deflections

9.4.3.1. The maximum deflection of structural members shall conform to Table 9.4.3.A. Dead loads need not be considered in computing such deflections.

SUBSECTION 9.4.4. BEARING CAPACITY FOR SOIL AND ROCK

9.4.4.1.(1) Where footing sizes for shallow foundations are not determined in conformance with Section 9.15, footings may be designed using maximum allowable bearing pressures in Table 9.4.4.A.

(2) The design procedures described in Section 4.2 may be used in lieu of the design procedures in this subsection.

(3) The design procedures described in Section 4.2 shall be used where

(a) deep foundations are used,

- (b) the footing size falls outside the scope of this section, or
- (c) the foundation is constructed on peat, filled ground or on sensitive clays as described in Article 9.15.1.2.

Table 9.4.3.A.
Forming Part of Article 9.4.3.1.

MAXIMUM DEFLECTIONS		
Structural Members	Type of Ceiling Supported	Maximum Allowable Deflection Expressed as a Ratio of the Clear Span
Roof rafters, roof joists, roof beams and roof decking of plank and beam construction	No ceiling	1/180
	Other than plaster or gypsum board	1/240
	Plaster or gypsums board	1/360
Ceiling joists	Other than plaster or gypsum board	1/240
	Plaster or gypsums board	1/360
Floor beams, floor joists and floor decking of plank and beam construction for floor area other than bedrooms in <u>dwelling units</u>	No ceiling	1/360
	Other than plaster or gypsum board	1/360
	Plaster or gypsum board	1/360
Floor beams, floor joists and floor decking of plank and beam construction for floor areas of bedrooms in <u>dwelling units</u>	No ceiling	1/240
	Other than plaster or gypsum board	1/240
	Plaster or gypsum board	1/360
Column 1	2	3

9.4.4.2. Where a soil or rock within a distance equal to twice the footing width below the bearing surface has a lower allowable bearing pressure than that at the bearing surface as shown in Article 9.4.4.1., the design capacity of the foundation shall not be greater than would cause the weakest soil or rock to

Table 9.4.4.A.
Forming Part of Article 9.4.4.1.

Type and Condition of Soil or Rock	Maximum Allowable Bearing Pressure, kPa
Dense or compact sand or gravel	150
Loose sand or gravel	50
Dense or compact silt	100
Stiff clay	150
Firm clay	75
Soft clay	40
Till	200
Clay shale	300
Sound rock	500
Column 1	2

be stressed beyond its allowable bearing pressure. In calculating such subsurface pressures, the loads from the footings shall be assumed to be distributed uniformly over a horizontal plane within a frustum extending downward from the footing at an angle of 60° to the horizontal.

9.4.4.3. Where a foundation bears on gravel, sand or silt, and the water table is within a distance below the bearing surface equal to the width of the foundation, the allowable bearing pressure shall be 50 per cent of that determined in Article 9.4.4.1.

9.4.4.4. Where a foundation is located in an area in which soil movement caused by changes in soil moisture content is known to occur to the extent that it will cause significant damage to a building, measures shall be taken to minimize the effect of such movement on the building.

9.4.4.5. Walls shall be designed to resist the lateral pressure of the retained material. Walls supporting drained earth may be designed for pressure equivalent to that exerted by a fluid with a density of not less than 480 kg/m³ and having a depth equal to that of the retained earth. Any surcharge shall be in addition to the equivalent fluid pressure.

SECTION 9.5 ROOM AND SPACE DIMENSIONS

SUBSECTION 9.5.1. GENERAL

Scope

9.5.1.1. This Section applies only to dwelling units that are intended for use on a continuing or

year-round basis as the principal residence of the occupant, tourist cottages and cabins for rent and hotel and motel rooms.

Method of measurement

9.5.1.2. Unless otherwise indicated herein, the areas, dimensions and heights of rooms or spaces shall be measured between finished wall surfaces and between finished floor and ceiling surfaces.

Combined space

9.5.1.3. Minimum dimensions listed for rooms or spaces in combination with other rooms or spaces refer to the minimum dimension of the combined space.

Floor areas

9.5.1.4. Minimum floor areas specified in this Section do not include closets or built-in bedroom cabinets unless otherwise indicated.

Combination rooms

9.5.1.5. Two or more areas are considered as a combination room if the dividing wall occupies less than 60 per cent of the separating plane.

9.5.1.6. Areas and dimensions of rooms and spaces may be less than required in this Section provided it can be shown that the rooms and spaces are adequate for their intended use, such as by the provision of built-in furniture to compensate for reduced sizes.

SUBSECTION 9.5.2. CEILING HEIGHTS

Room heights

9.5.2.1. Heights of rooms or spaces in residential occupancies shall conform to Table 9.5.2.A.

9.5.2.2. The clear height above and below a mezzanine floor assembly in all occupancies shall be not less than 2.15 m.

9.5.2.3. The clear height in a storage garage shall be not less than 2 m.

SUBSECTION 9.5.3. LIVING ROOMS OR SPACES WITHIN DWELLING UNITS

Living room area

9.5.3.1. Living areas within dwelling units, either as separate rooms or in combination with other spaces, shall have at least 13.5 m² of floor area and shall have no dimension less than 3 m within the required area. Where the area of a living space is combined with a kitchen and dining area, the living area alone in a bachelor dwelling unit shall be at least 11 m².

Table 9.5.2.A.
Forming Part of Article 9.5.2.1.

ROOM HEIGHTS	
Room or Space	Minimum Heights
Living room or space, dining room or space, kitchen or kitchen space	2.3 m over at least 75 per cent of the required floor area with a clear height of 2.1 m at any point over the required area
Bedroom or bedroom space	2.3 m over at least 50 per cent of the required area or 2.1 m over all of the required floor area. Any part of the floor having a clear height of less than 1.4 m shall not be considered in computing the required floor area
Unfinished <u>basement</u> including laundry area therein	1.95 m under beams in laundry areas and in any location that would normally be used for passage to laundry and storage areas
Bathroom, water-closet room or laundry area above <u>grade</u>	2.1 m in any area where a person would normally be in a standing position
Passage, hall or main entrance vestibule and finished rooms not specifically mentioned above	2.1 m
Column 1	2

SUBSECTION 9.5.4. DINING ROOMS OR SPACES WITHIN DWELLING UNITS

Dining room area

9.5.4.1. A dining space in combination with other space shall have a minimum floor area of 3.25 m². Dining rooms not combined with other space shall have a minimum area of 7 m².

9.5.4.2. Except as permitted in Article 9.5.4.3., a dining room or space combined with other space shall have no dimension less than 2.3 m within the required area measured between wall faces or a wall face and a built-in cabinet or appliance.

9.5.4.3. When a required dining area is provided in a kitchen or serves a bachelor dwelling unit, the minimum dimension of such space may be reduced to 1.7 m.

SUBSECTION 9.5.5. KITCHENS WITHIN DWELLING UNITS

Kitchen area

9.5.5.1. Kitchen areas within dwelling units either separate from or in combination with other space shall have at least 4.2 m^2 of floor area including the area occupied by the base cabinets, except that in bachelor dwelling units the minimum floor area shall be 3.7 m^2 .

SUBSECTION 9.5.6. BEDROOMS OR SPACES IN DWELLING UNITS AND DORMITORIES

9.5.6.1. Except as provided in Articles 9.5.6.2. and 9.5.6.3., bedrooms in dwelling units shall have at least 7 m^2 of floor area where built-in cabinets are not provided and 6 m^2 of floor area where built-in cabinets are provided. The minimum dimension within the required area shall be 2 m.

9.5.6.2. Except as provided in Article 9.5.6.3., at least 1 bedroom in every dwelling unit shall have at least 9.8 m^2 of floor area where built-in cabinets are not provided and 8.8 m^2 of floor area where built-in cabinets are provided. The minimum dimension within the required area shall be 2.7 m.

Combination
bedroom

9.5.6.3. Bedroom spaces in combination with other spaces in dwelling units shall have at least 4.2 m^2 of floor area and have no dimension less than 2 m within the required area.

9.5.6.4. Sleeping rooms other than in dwelling units shall have at least 7 m^2 of floor area per person for single occupancy and 4.6 m^2 per person for multiple occupancy. The minimum dimension within the required area shall be 2 m.

SUBSECTION 9.5.7. BATHROOMS AND WATER-CLOSET ROOMS

Bathroom areas

9.5.7.1. In every dwelling unit an enclosed space of sufficient size shall be provided to accommodate a water closet, lavatory and bathtub or shower stall.

SUBSECTION 9.5.8. HALLWAYS

Width of
hallways

9.5.8.1. The width of a hallway within a dwelling unit shall be at least 860 mm, except that in buildings not exceeding 4.3 m in width the hallway width may be 710 mm where a second exit is provided near the end of the hallway farthest from the living area.

SECTION 9.6 DOORS

SUBSECTION 9.6.1. GENERAL

9.6.1.1. This Section applies to doors, to glazed areas in doors and to sidelights for doors.

SUBSECTION 9.6.2. REQUIRED DOORS

Required doors

9.6.2.1. A door shall be provided at each entrance to a dwelling unit and to each room containing a water closet within a dwelling unit.

SUBSECTION 9.6.3. DOORWAY SIZES

Doorway
openings

9.6.3.1. Except as provided in Articles 9.6.3.3. and 9.9.6.5., doorway openings within dwelling units shall be designed to accommodate not less than the door sizes in Table 9.6.3.A. for swing-type doors. Where folding doors are to be provided, the same openings apply.

9.6.3.2. Doors to public water-closet rooms shall be not less than 810 mm in width and 2 030 mm in height.

9.6.3.3. Where a barrier-free access conforming to Section 3.7 is provided into a suite of residential occupancy and where a bathroom within the suite is at the level of the suite entrance door, the doorway to such bathroom and to each bedroom at the same level as such bathroom shall have, when the door is in the open position, a clear width of at least

(a) 760 mm where the door is served by a corridor or space at least 1060 mm wide, and

(b) 810 mm where the door is served by a corridor or space less than 1060 mm wide.

SUBSECTION 9.6.4. EXTERIOR DOORS

Exterior doors

9.6.4.1. Exterior wood doors shall conform to CSA 0132.2, "Wood Doors". Each door shall indicate legibly the name of the manufacturer, the standard to which it is produced and that it is of an exterior type.

9.6.4.2. Aluminum frame sliding glass doors shall conform to CGSB 82-GP-1M, "Doors, Glass, Aluminum Frame, Sliding, Standard-Duty" or to CGSB 82-GP-2M, "Doors, Glass, Aluminum Frame, Sliding, Medium-Duty."

Table 9.6.3.A
Forming Part of Article 9.6.3.1.

MINIMUM SIZE OF DOORS		
At Entrance to:	Width, mm	Height, mm
Dwelling unit (required entrance) Vestibule or entrance hall	800	2 030
Stairs to a floor level that contains a finished space All doors in at least one line of passage from the exterior to the <u>basement</u> Utility rooms	800	1 980
Walk-in closet	600	1 980
Bathroom, water-closet room, shower room ⁽¹⁾	600	1 980
Rooms located off hallways that are permitted to be 710 mm wide	600	1 980
Rooms not mentioned above, exterior balconies	760	1 980
Column 1	2	3

Note to Table 9.6.3.A:

⁽¹⁾See Article 9.6.3.3.

9.6.4.3. Insulated steel doors shall conform to CGSB 82-GP-5M, "Doors, Insulated, Steel".

9.6.4.4. Except for doors on enclosed unheated vestibules and cold cellars, and except for glazed portions of doors, all doors separating heated space from unheated space shall have a thermal resistance of at least RSI 0.7 where a storm door is not provided.

9.6.4.5. All sliding glass doors separating heated space from the outside shall have a thermal resistance of at least $0.30 \text{ m}^2 \text{ }^\circ\text{C/W}$ where a storm door is not provided.

9.6.4.6. All glazed portions of doors separating heated space from the outside shall have a thermal resistance of at least $0.30 \text{ m}^2 \text{ }^\circ\text{C/W}$.

9.6.4.7. Except where doors are weather stripped on all edges, and protected with a storm door, or by an

enclosed unheated space, exterior swing type door assemblies shall have a rate of air infiltration not exceeding $11.6 \times 10^{-4} \text{ m}^3/\text{s}$ for each metre of crack length when tested at a pressure differential of 75 Pa in conformance with ASTM E283-73 "Standard Method of Test for Rate of Air Leakage through Exterior Windows, Curtain Walls".

9.6.4.8. Patio type sliding glass doors shall have a rate of air infiltration not exceeding $38 \times 10^{-4} \text{ m}^3/\text{s}$ for each square metre of door area when tested in conformance with ASTM E283-73.

9.6.4.9. In buildings of residential occupancy weatherstripping shall be provided around all exterior doors except garage doors.

SUBSECTION 9.6.5. GLASS

9.6.5.1. The maximum area of individual panes of glass for doors shall conform to Table 9.6.5.A

Table 9.6.5.A.
Forming Part of Article 9.6.5.1.

MAXIMUM GLASS AREA FOR DOORS, m^2(¹)						
Glass Thickness, mm	Type of Glass					
	Annealed	Annealed Multiple- Glazed, Factory-Sealed Units	Laminated	Wired	Heat Strength- ened	Fully Tempered
3	0.50	0.70	(²)	(²)	1.00	1.00
4	1.00	1.50	(²)	(²)	1.50	4.00
5	1.50	1.50	(²)	(²)	1.50	No limit
6	1.50	1.50	1.20	1.00	1.50	No limit
Column 1	2	3	4	5	6	7

Note to Table 9.6.5.A.:

(¹)RESERVED.

(²)Not generally available.

9.6.5.2. Glass in doors and in sidelights for doors shall conform to Article 9.7.3.1.

9.6.5.3. Glass side lights greater than 500 mm in width that could be mistaken for doors, glass in storm doors and glass in sliding doors within or at

every entrance to a dwelling unit and in public areas shall be safety glass of the laminated or tempered type conforming to CAN2-12.1, "Glass, Safety, Tempered or Laminated", or shall be of wired glass conforming to CAN2-12.11, "Glass, Wired, Safety".

9.6.5.4. Glass in entrance doors to dwelling units and in public areas, other than the entrance doors described in Article 9.6.5.3., shall be safety glass or wired glass of the type described in Article 9.6.5.3. where the glass area exceeds 0.5 m^2 and extends to less than 900 mm from the bottom of the door.

9.6.5.5. Mirrored glass doors may be used only at the entrance to clothes closets. Such doors shall be reinforced with hardboard, plywood or particleboard securely fastened to the back of the mirror unless the glass is safety glass of the laminated or tempered type.

9.6.5.6. Except as provided in Article 9.7.5.3., every glass or transparent door accessible to and used by the public shall be equipped with hardware, bars or other permanent fixtures designed so that the existence and position of such door will be readily apparent.

9.6.5.7. Glass other than safety glass shall not be used for a shower or bathtub enclosure.

SECTION 9.7 WINDOWS AND SKYLIGHTS

SUBSECTION 9.7.1. GENERAL

9.7.1.1. Windows shall conform to the requirements of this Section.

Minimum
window glass
areas

9.7.1.2. Except as required in Article 9.7.1.3., the minimum window glass area for rooms in buildings of residential occupancy or which are used for sleeping shall conform to Table 9.7.1.A. The unobstructed glass area of a door or skylight is considered equivalent to that of a window.

Windows in
bedrooms

9.7.1.3. Except where a bedroom provides access directly to the exterior, each bedroom shall have at least 1 outside window that can be opened from the inside without the use of tools and each such window shall provide an individual, unobstructed open portion having a minimum area of 0.35 m^2 and having no dimension less than 380 mm.

Table 9.7.1.A.
Forming Part of Article 9.7.1.2.

MINIMUM GLASS AREAS FOR ROOMS OF RESIDENTIAL OCCUPANCY		
Location	Unobstructed Glass Area	
	With No Electric Lighting	With Electric Lighting
Laundry, <u>basement</u> recreation room, unfinished <u>basement</u>	4 per cent of area served	Windows not required
Water-closet room	0.37 m ²	Windows not required
Kitchen, kitchen space, kitchen alcove	10 per cent of area served	Windows not required
Living rooms and dining rooms	10 per cent of area served	10 per cent of area served
Bedrooms and other finished rooms not mentioned above	5 per cent of area served ⁽¹⁾	5 per cent of area served ⁽¹⁾
Column 1	2	3

Note to Table 9.7.1.A.:

⁽¹⁾See Article 9.7.1.3.

9.7.1.4. Where a window required in Article 9.7.1.3. opens into a window-well, a clearance of at least 550 mm shall be provided in front of the window. Where the sash swings towards the window-well, the operation of the sash shall not reduce the clearance in a manner that would restrict escape in an emergency.

Windows in
public spaces

9.7.1.5. Wherever practicable, windows shall be provided to light corridors, stairways and similar public space in buildings.

9.7.1.6. Where termites are known to exist and where windows or other openings at or below grade contain wood elements, the bottom of window wells or adjacent ground shall be at least 150 mm below the nearest wood unless the wood is pressure treated with a chemical toxic to termites in accordance with Article 9.3.2.9.

9.7.1.7. All glazing that separates heated space from unheated space or the exterior shall have a thermal resistance of at least $0.30 \text{ m}^2 \text{ }^\circ\text{C/W}$.

9.7.1.8. Where an enclosed unheated space, such as a sun porch, enclosed verandah or vestibule, is separated from a heated space by glazing, the unheated enclosure may be considered to provide a thermal resistance of $0.16 \text{ m}^2 \text{ }^\circ\text{C/W}$, or the equivalent of one layer of glazing.

9.7.1.9. Air infiltration of exterior windows shall not exceed $775 \text{ dm}^3/\text{s}$ for each metre of sash crack when tested at a pressure differential of 75 Pa in conformance with ASTM E283 "Standard Method of Test Rate of Air Leakage through Exterior Windows, Curtain Walls".

SUBSECTION 9.7.2. WINDOW STANDARDS

9.7.2.1.(1) Unless otherwise specified in this Section, windows shall conform to one of the following:

CAN3-A440,	"Windows",
CSA 0132.1,	"Wood Windows",
CSA A274,	"Vinyl Windows",
CAN2-12.8,	"Insulating Glass Units",
CGSB 63-GP-2M,	"Windows, Extruded Aluminum, Vertical and Horizontal Sliding, Medium Duty",
CGSB 63-GP-3M,	"Windows, Extruded Aluminum, Vertical and Horizontal Sliding, Standard Duty",
CGSB 63-GP-5M,	"Windows, Steel Vertical and Horizontal Sliding, Standard Duty", or
CGSB 63-GP-6M,	"Windows, Steel Vertical and Horizontal Sliding, Medium Duty".

Windows manufactured in conformance with CGSB window standards may be either Grade 1 or Grade 2, regardless of height above grade.

(2) The Standards in Sentence 9.7.2.1.(1) do not apply to buildings designed and constructed in accordance with CSA Standard Z240.2.1 provided the windows in such buildings comply with CSA Standard Z240.8.1.

SUBSECTION 9.7.3. GLASS

Quality of
glass

9.7.3.1. Glass shall conform to one of the following:

CAN2-12.1,	"Glass, Safety, Tempered or Laminated",
CAN2-12.2,	"Glass, Sheet, Flat, Clear",
CAN2-12.3,	"Glass, Polished Plate or Float, Flat, Clear",
CAN2-12.4,	"Glass, Heat-Absorbing",
CAN2-12.8,	"Insulating Glass Units",
CAN2-12.10,	"Glass, Light and Heat Reflecting", or
CAN2-12.11,	"Glass, Wired, Safety".

Thickness of glass

9.7.3.2. The thickness of glass supported on 4 edges shall conform to Table 9.7.3.A. Glass supported on 2 edges shall be designed in conformance with Part 4.

Table 9.7.3.A.
Forming Part of Article 9.7.3.2.

MAXIMUM GLASS AREA FOR WINDOWS, m ²						
Glass Thickness, mm	Type of Glass					
	Annealed	Annealed Multiple-Glazed, Factory-Sealed Units	Laminated	Wired	Heat Strengthened	Fully Tempered
2	0.50	0.70	(¹)	(¹)	(¹)	(¹)
3	1.30	1.95	(¹)	(¹)	(¹)	(¹)
4	2.20	3.30	(¹)	(¹)	4.40	8.80
5	3.10	4.65	1.85	(¹)	6.20	12.40
6	4.15	6.20	2.50	2.00	8.30	No limit
8	6.50	9.75	3.90	(¹)	13.00	No limit
10	9.20	No limit	5.50	4.60	No limit	No limit
12	12.25	No limit	7.35	(¹)	No limit	No limit
Column 1	2	3	4	5	6	7

Note to Table 9.7.3.A.:

(¹)Not generally available.

SUBSECTION 9.7.4. CAULKING AND GLAZING

Glazing compound

9.7.4.1. Sealing compound used in the glazing of factory-sealed double-glazed units shall be compatible with the material used to edge seal the units.

Caulking

9.7.4.2. Caulking shall be provided between window frames or trim and the exterior siding or masonry in conformance with Subsection 9.28.4.

SUBSECTION 9.7.5. WINDOWS IN PUBLIC AREAS

9.7.5.1. Except as provided in Article 9.7.5.3., transparent panels that could be mistaken as a means of egress shall be protected by barriers or railings.

9.7.5.2. Windows in exit stairways that extend to less than 1 070 mm above the landing shall be protected by barriers or railings located approximately 1 070 mm above such landings.

9.7.5.3. Sliding glass partitions which separate a public corridor from an adjacent occupancy and which are open during normal working hours need not conform to Articles 9.7.5.1. and 9.6.5.4., except that such partitions shall be suitably marked to indicate their existence and position.

9.7.5.4. Windows in public areas that extend to less than 1 m from the floor and are located above the second storey in buildings of residential occupancy shall be protected by barriers or railings 1 m above the floor or the windows shall be non-openable and designed to withstand the lateral design loads for balcony guards in Part 4.

SUBSECTION 9.7.6. SKYLIGHTS

Skylights

9.7.6.1. Plastic skylights shall conform to CGSB 63-GP-14M, "Skylights, Plastic".

9.7.6.2. Factory-built glass skylights shall meet the performance requirements of CGSB 63-GP-14M

SECTION 9.8 STAIRS, RAMPS, HANDRAILS AND GUARDS

SUBSECTION 9.8.1. SCOPE

Design and construction of stairs

9.8.1.1. This Section applies to the design and construction of interior and exterior stairs, steps, ramps, railings and guards.

Stairs as part of exit

9.8.1.2. Where the stair forms part of an exit, the appropriate requirements in Sections 9.9 and 9.10 shall also apply.

Escalators and moving walkways

9.8.1.3. Escalators and moving walkways shall conform to the appropriate requirements in Part 3.

SUBSECTION 9.8.2. GENERAL

Treads and risers

9.8.2.1.(1) Treads and risers shall have uniform rise and run in any one flight.

(2) A stairway that is not an exit may contain both a curved and straight portions of stairs in a single flight provided each curved portion conforms to Article 9.8.5.2. and the riser height is uniform throughout the flight.

Number of risers
required in
stairs

9.8.2.2. Except for interior stairs within a dwelling unit, at least 3 risers shall be provided for interior stairs.

Stairway
protection

9.8.2.3. Interior stairways extending through the roof of a building shall be protected from ice and snow.

SUBSECTION 9.8.3. STAIR DIMENSIONS

Maximum rise,
minimum run and
tread width

9.8.3.1. Except for stairs to areas used only as service rooms, interior stairs within dwelling units and exterior stairs serving dwelling units shall have a maximum rise of 200 mm, a minimum run of 210 mm and a minimum tread width of 235 mm.

9.8.3.2. Except for stairs serving not more than 1 dwelling unit, interior stairs not contained within dwelling units and exterior stairs for buildings shall have a maximum rise of 200 mm and a minimum rise of 125 mm. Such stairs shall have a minimum run of 230 mm, a maximum run of 355 mm and a minimum tread width of 250 mm.

Nosing

9.8.3.3. Where the run of any stair is less than 250 mm, a nosing of at least 25 mm shall be provided beyond the face of the riser, or an equivalent back slope on the risers shall be provided.

9.8.3.4. Except as required in Article 9.9.3.4., exit stairs and stairs used by the public shall have a width, measured between wall faces or guards, of at least 900 mm.

9.8.3.5. At least 1 stairway between each floor level in a dwelling unit shall have a minimum width between wall faces of at least 860 mm.

Clear height

9.8.3.6. The head room measured vertically from a line drawn through the outer edges of the nosings shall be at least 1.95 m for stairs located in dwelling units and 2.05 m for all other stairs.

SUBSECTION 9.8.4. LANDINGS

Landings

9.8.4.1. Landings shall be at least as wide and as long as the width of stairs in which they occur, except that the length of landing for exterior stairs serving not more than 1 dwelling unit need not exceed

900 mm, and the length of landing for all other stairs in a straight run need not exceed 1 100 mm.

Door swing on stairs

9.8.4.2. Where a door swings towards a stair, the full arc of its swing shall be over a landing. Except as provided in Article 9.8.4.3., a landing shall be provided at the top and bottom of each flight of interior stairs and where a doorway occurs in a stairway.

9.8.4.3. Where a door occurs at the top of the stair in a dwelling unit, no landing is required between the doorway and the stairs.

9.8.4.4. A landing shall be provided at the top of all exterior stairs, except that a landing may be omitted at a secondary entrance to a building containing a single dwelling unit provided the stair does not contain more than 3 risers.

Height between landings

9.8.4.5. The vertical height between any landings shall not exceed 3.7 m.

Clear height over landings

9.8.4.6. The clear height over landings shall be at least 1.95 m in dwelling units and 2.05 m for other landings.

SUBSECTION 9.8.5. CURVED STAIRS AND WINDERS

Curved stairs in exits

9.8.5.1. Curved stairs used in exits shall conform to the requirements for exit stairs in this Section.

Curved stairs not in exits

9.8.5.2. Except as permitted in Article 9.8.5.3., a curved stair not required as an exit shall have a minimum average run of 200 mm and a minimum run of 150 mm and shall have risers conforming to Articles 9.8.3.1. and 9.8.3.2.

Winders

9.8.5.3. Stairs within dwelling units may contain winders that converge to a centre point provided the winders turn through an angle of not more than 90° and individual treads turn through an angle of 30°. Only 1 set of such winders shall be permitted between floor levels.

SUBSECTION 9.8.6. PEDESTRIAN RAMPS

9.8.6.1. Ramps in a barrier-free access shall conform to the requirements in Section 3.7.

Maximum gradient for ramps

9.8.6.2. Except as provided in Article 9.8.6.1., the maximum gradient for pedestrian ramps shall be 1 in 10 for residential occupancies, 1 in 6 for mercantile or industrial occupancies and 1 in 8 for

all other occupancies. The maximum gradient for every exterior ramp shall be 1 in 10.

Level area in
ramps

9.8.6.3. Except as provided in Article 9.8.6.1., where a doorway or stairway opens onto the side of a ramp, there shall be a level area extending across the full width of the ramp and for a distance of at least 300 mm on either side of the wall opening.

Doorways near
ramps

9.8.6.4. Except as provided in Article 9.8.6.1., where a doorway or stairway opens onto the end of a ramp, there shall be a level area extending across the full width of the ramp and along it for at least 900 mm.

SUBSECTION 9.8.7. HANDRAILS

9.8.7.1. Except as permitted in Articles 9.8.7.5. and 9.8.7.6., a handrail shall be provided on at least 1 side of stairs less than 1 100 mm in width, and on 2 sides of stairs 1 100 mm in width or greater.

9.8.7.2. Except for stairs serving only 1 dwelling unit, at least 1 handrail shall be continuous throughout the length of the stairway, including landings, except where interrupted by doorways or newels at changes in direction.

9.8.7.3. Except for stairs serving only 1 dwelling unit, handrails shall be terminated in a manner that will not obstruct pedestrian travel or create a hazard.

9.8.7.4. Except for stairs serving only 1 dwelling unit, handrails at the sides of stairs and ramps shall extend horizontally at least 300 mm beyond the top and bottom of stairways and ramps.

9.8.7.5. Handrails are not required for stairs within dwelling units having not more than 2 risers, or for exterior stairs having not more than 3 risers and serving not more than 1 dwelling unit.

9.8.7.6. Only 1 handrail is required on exterior stairs having more than 3 risers provided such stairs serve not more than 1 dwelling unit.

9.8.7.7. Handrails on stairs and ramps shall be not less than 800 mm and not more than 920 mm in height, measured vertically from a line drawn through the outside edges of the stair nosing or from the surface of the ramp, except that handrails not meeting these

requirements are permitted provided they are installed in addition to the required handrails.

9.8.7.8. A clearance of at least 40 mm shall be provided between each handrail and the wall to which it is fastened.

9.8.7.9. Handrails shall be so constructed that there will be no obstruction on or above them to break a handhold.

9.8.7.10. Handrails and stair stringers shall not project more than 100 mm into the required width of stairway.

9.8.7.11. Where ramps are used in lieu of stairs, the handrail requirements for stairs in Articles 9.8.7.1. to 9.8.7.4. and Articles 9.8.7.6. to 9.8.7.10. shall apply where the gradient exceeds 1 in 10.

SUBSECTION 9.8.8. GUARDS

Where required

9.8.8.1. Every exterior landing, porch and every balcony, mezzanine, gallery, raised walkway and roof to which access is provided for other than for maintenance purposes, shall be protected by guards on all open sides where the difference in elevation between adjacent levels exceeds 600 mm, and every exterior stair with more than 6 risers shall be protected with guards on all open sides where the difference in elevation between the adjacent ground level and the stair exceeds 600 mm.

9.8.8.2. When a interior stair has more than 2 risers, the sides of the stair and the landing or floor level around the stair well shall be enclosed by walls or be protected by guards, except that a stair to an unfinished basement in a dwelling unit may have 1 unprotected side.

Height of
guards

9.8.8.3. Except as provided in Articles 9.8.8.4. and 9.8.8.5., all guards including those for balconies shall be at least 1 070 mm in height, except that guards for porches, decks and landings not more than 1.2 m above the finished ground level may be a minimum of 820 mm.

9.8.8.4. Except as provided in Article 9.8.8.5., guards for stairs shall be at least 900 mm in height measured vertically from a line drawn through the outside edges of the stair nosings, and 1 070 mm in height at landings.

9.8.8.5. Guards for stairs within dwelling units and stairs serving not more than 1 dwelling unit shall be

at least 800 mm measured vertically above a line drawn through the outside edges of stair nosings, and at least 900 mm above landings. All other required guards within dwelling units shall be at least 900 mm in height.

9.8.8.6. Except for floors of garages in Section 9.36, a continuous curb at least 150 mm in height and a guard not less than 1 070 mm above the floor level shall be provided at every opening through a garage floor and around the perimeter of such floor and ramps where the exterior walls are omitted where the top of the floor is 600 mm or more above an adjacent ground or floor level.

Openings in
guards

9.8.8.7. Openings through a guard on a balcony or an exit stair, except an exit stair serving not more than 1 dwelling unit, shall be of a size so as to prevent the passage of a spherical object having a diameter of 100 mm in residential occupancies and 200 mm in other occupancies, unless it can be shown that the location and size of such openings which exceed these limits do not represent a hazard.

9.8.8.8. Guards around exterior balconies of buildings of residential occupancy shall be designed so that no member, attachment or opening located between 100 mm and 900 mm above the balcony floor will facilitate climbing.

9.8.8.9. Guards for ramps including vehicular ramps shall conform to the requirements for guards for stairs in Articles 9.8.8.3., 9.8.8.4. and 9.8.8.7.

SUBSECTION 9.8.9. CONSTRUCTION

Support for
exterior stairs

9.8.9.1. Exterior concrete stairs with more than 2 risers and 2 treads shall be supported by

- (a) masonry walls,
- (b) concrete walls,
- (c) concrete piers at least 150 mm by 150 mm, or
- (d) a cantilever from the main foundation wall.

(2) For exterior concrete steps the depth below ground level for the foundations shall conform to Subsection 9.12.2.

(3) Where exterior concrete steps are cantilevered as permitted in Sentence (1), they shall be constructed and installed in conformance with Subsection 9.8.10.

Wooden stair
stringers

9.8.9.2.(1) Wood stair stringers shall

- (a) have a minimum effective depth of 90 mm and an overall depth of at least 235 mm,
- (b) be secured and supported top and bottom,
- (c) have an actual thickness of
 - (i) at least 25 mm if supported along their length, or
 - ii) at least 38 mm if unsupported along their length.

(2) Wood stair stringers shall be spaced

- (a) not more than 900 mm O.C. in dwelling units,
- (b) not more than 600 mm O.C. when located in other than dwelling units, and
- (c) not more than 1 200 mm O.C. unless the stringers are designed for wider spacings.

Wooden treads

9.8.9.3. Lumber or plywood treads for stairs within dwelling units shall be at least 25 mm actual thickness, except that if open risers are used, and the distance between stringers exceeds 750 mm, the treads shall be at least 38 mm actual thickness.

Tread finish

9.8.9.4. The finish for treads and landings of interior stairs in dwelling units, other than stairs to unfinished basements, shall consist of hardwood, vertical grain softwood, resilient flooring or other material providing equivalent performance.

Slip-resistant
finish

9.8.9.5. Treads and landings of interior and exterior stairs and ramps, other than those serving a single dwelling unit, shall have a slip-resistant finish or be provided with slip-resistant strips which extend not more than 1 mm above the surface.

SUBSECTION 9.8.10. CANTILEVERED PRECAST CONCRETE STEPS

9.8.10.1. Exterior concrete steps and their anchorage system that are cantilevered from a foundation wall shall be designed and installed to support the loads to which they may be subjected.

9.8.10.2. Cantilevered concrete steps in Article 9.8.10.1. shall be anchored to concrete foundation walls at least 200 mm thick.

9.8.10.3. Suitable precautions shall be taken during backfilling and grading operations to ensure that subsequent freezing of the soil will not cause uplift forces on the underside of cantilevered concrete steps to the extent that the steps or the walls to which they are attached will be damaged.

SECTION 9.9 MEANS OF EGRESS

SUBSECTION 9.9.1. SCOPE

Stairs, handrails
and guards

9.9.1.1. Stairways, handrails and guards in a means of egress shall conform to the requirements in Section 9.8 as well as to the requirements in this Section.

Fire protection

9.9.1.2. Flame-spread ratings, fire-resistance ratings and fire-protection ratings shall conform to Section 9.10.

SUBSECTION 9.9.2. GENERAL

9.9.2.1.(1) An access to exit shall be provided from every roof intended for occupancy and from every podium, terrace, platform or contained open space.

(2) Where a roof is intended for an occupant load of more than 60 persons, at least 2 separate means of egress shall be provided from the roof to stairs designed in conformance with the requirements for exit stairs and located remote from each other.

(3) Egress requirements from a podium, terrace, platform or contained open space shall conform to the appropriate requirements for rooms, or suites in Article 9.9.7.4.

9.9.2.2. Exits may consist of doorways, passageways, ramps, stairways and horizontal exits. Fire escapes may be used as exits on existing buildings provided they are designed and installed in conformance with Part 3.

Not considered
as means of
egress

9.9.2.3.(1) Elevators, slide escapes or windows shall not be considered as being part of a required means of egress.

(2) Except for floor areas of mercantile occupancy, casement windows not less than 1060 mm high, 560 mm wide, with a sill height not more than 900 mm above the inside floor, may be considered part of a required means of egress to provide access to fire escapes, when fire escapes are permitted.

Use of exits

9.9.2.4. An exit shall be designed for no purpose other than for exiting except that an exit may also serve as an access to a floor area.

9.9.2.5. Ancillary rooms such as storage rooms, washrooms, toilet rooms, laundry rooms and service rooms shall not open directly into an exit.

Fire escapes

9.9.2.6. Fire escapes shall not be installed on any new building.

Barrier-free access

9.9.2.7. Except as provided in Article 9.9.2.8., every building shall provide barrier-free access in conformance with Section 3.7.

9.9.2.8. Barrier-free access described in Article 9.9.2.7. need not be provided for apartment buildings without elevators or houses, including semi-detached, duplexes, triplexes, town houses, boarding houses and row houses.

9.9.2.9. Where a horizontal exit is used, it shall conform to Part 3.

9.9.2.10. The front edge of stair treads in exits and access to exits shall be at right angles to the direction of exit travel.

SUBSECTION 9.9.3. DIMENSIONS OF MEANS OF EGRESS

Scope

9.9.3.1. This Subsection applies to every means of egress except exits that serve not more than 1 dwelling unit and access to exits within dwelling units.

9.9.3.2. Except for dwelling units, the occupant load of a floor area or part of a floor area used in determining the minimum required width of a means of egress shall be the number of persons for which such areas are designed, but not fewer than that determined from Table 3.1.14.A. unless it can be shown that the area will be occupied by fewer persons.

9.9.3.3. The occupant load for dwelling units shall be based on 2 persons per bedroom or sleeping area.

9.9.3.4.(1) Except as provided in Subsection 9.9.6., the width of an exit corridor shall be at least 1 100 mm and the width of other exits at least 900 mm, unless greater widths are required because of the occupant load.

(2) In computing the exit width on the basis of occupant load, the minimum aggregate width of

exterior exit doors shall be 1 unit per 90 persons, and the minimum aggregate width of other exits shall be 1 unit per 30 persons for residential occupancies and 1 unit per 60 persons for other occupancies.

9.9.3.5. Except as provided in Subsection 9.9.6., the minimum width of a doorway, corridor or passageway in an access to exit shall be 1 unit per 90 persons, but in no case shall the minimum width of a public corridor or a corridor used by the public be less than 1 100 mm.

Width of stairs
in an access to
exit

9.9.3.6. Except as provided in Subsection 9.9.6., the minimum width of a stairway or ramp in an access to exit shall be 1 unit per 60 persons.

Calculation of
units of exit
width

9.9.3.7. In determining the width in units of an individual exit, the width of the exit in millimetres shall be divided by 550, and if the remainder is 300 mm or more, it shall be considered as contributing 1/2 unit of exit width.

Aggregate width
of exits

9.9.3.8. Except as provided in Article 9.9.3.9., the required units of exit width shall be cumulative where 2 or more exits converge.

9.9.3.9. Where an exit stair serves 2 or more floor areas one above the other, the required units of exit width are not cumulative.

Height of means
of egress

9.9.3.10. Except as provided in Subsection 9.9.6. and Articles 9.8.3.6. and 9.8.4.6., the minimum height of exits and corridors which provide access to exits shall be 2.1 m.

SUBSECTION 9.9.4. FIRE PROTECTION OF EXITS

Scope

9.9.4.1. This Subsection applies to the fire protection of all exits except exits serving not more than 1 dwelling unit.

Fire separation
of exits

9.9.4.2. Except as provided in Article 9.9.4.9., every exit other than an exterior doorway shall be separated from the remainder of the building or from another exit by a fire separation having a fire-resistance rating of at least 3/4 h.

9.9.4.3. A fire separation common to 2 exits shall be smoke-tight and not be pierced by doorways, duct work, piping or any other opening that may effect the continuity of the separation.

9.9.4.4. The area of wired glass in a door or side light between an exit enclosure and the remainder of the building shall not exceed 0.8 m^2 , except that greater glass areas are permitted when the door or sidelight is located in an enclosed vestibule or corridor constructed as a fire separation having at least a $3/4 \text{ h}$ fire-resistance rating.

9.9.4.5. A fire separation that separates an exit from the remainder of the building shall have no openings except those for electrical wiring, noncombustible conduit and noncombustible piping that serve only the exit and for standpipes, sprinkler piping and exit doorways.

9.9.4.6. Where an unenclosed exterior exit stair or ramp may be exposed to fire from openings in the exterior walls of the building it serves, the openings in the exterior walls of the building shall be protected with wired glass in fixed steel frames or glass block conforming to Articles 9.10.13.5. and 9.10.13.8. when the openings in the exterior walls of the building are within 3 m horizontally and less than 10 m below or less than 5 m above the exit stair or ramp.

Protection of
windows in
exits

9.9.4.7. Openings in the exterior wall of an exit shall be protected with wired glass or glass block installed in accordance with Articles 9.10.13.5. and 9.10.13.8., where openings may be exposed to the hazard of a fire in another fire compartment of the same building.

9.9.4.8. Where an exterior exit door in one fire-compartment is within 3 m horizontally of openings in another fire compartment, and if the exterior walls containing such openings intersect at an exterior angle of less than 135° , the openings shall be protected with wired glass in fixed steel frames conforming to Article 9.10.13.5. or glass block conforming to Article 9.10.13.8.

9.9.4.9. The requirements in Article 9.9.4.2. do not apply to an exterior exit passageway provided the passageway has at least 50 per cent of its exterior sides open to the outdoors and is served by an exit stair at each end of the passageway.

9.9.4.10.(1) Notwithstanding Article 9.9.4.2. in buildings intended for D or E occupancy unenclosed stairs may serve as a required exit in such occupancies provided,

- (a) the building does not exceed 2 storeys in building height;
- (b) the occupancy containing the open stair consists of a single tenancy and is separated from other occupancies by at least a 3/4 hour fire separation;
- (c) the area occupied does not exceed 75.0 m² per storey;
- (d) the maximum travel distance from any point in the building does not exceed 23.0 m;
- (e) the floor assemblies have at least a 3/4 hr. fire resistance rating or are of noncombustible construction;
- (f) the basement and the first floor are separated by at least a 3/4 hr. fire separation; and
- (g) a smoke alarm is installed on each floor, including the basement, in accordance with Subsection 9.10.18.

(2) The requirements of Article 9.10.12.1. do not apply to an occupancy conforming with Sentence (1).

SUBSECTION 9.9.5. OBSTRUCTIONS AND HAZARDS IN MEANS OF EGRESS

Scope

9.9.5.1. This Subsection applies to obstructions and hazards in every means of egress except those within a dwelling unit or serving not more than 1 dwelling unit.

Occupancies in public corridors

9.9.5.2. Where a public corridor or a corridor used by the public contains an occupancy, such occupancy shall not reduce the unobstructed width of the corridor to less than the required width of the corridor.

Obstructions in corridors

9.9.5.3. Except as permitted in Article 9.9.5.4., obstructions located within 1 980 mm of the floor shall not project horizontally more than 100 mm into exit passageways, corridors used by the public or public corridors in a manner that would create a hazard for visually impaired persons travelling adjacent to walls.

9.9.5.4. The horizontal projection of an obstruction in Article 9.9.5.3. is permitted to exceed 100 mm where the obstruction extends to less than 680 mm above the floor.

Obstructions in exits

9.9.5.5. Except as permitted in Subsection 9.9.6. and Article 9.8.7.10., no fixture, turnstile or construction shall project within the required width of an exit.

9.9.5.6. In any mercantile occupancy, no obstructions such as posts or turnstiles shall be placed so as to restrict the width of a normal means of egress from a floor area or part of a floor area to less than 750 mm unless an alternate means of egress is provided adjacent to and is plainly visible from the restricted egress.

Mirrors in exits

9.9.5.7. No mirror shall be placed in or adjacent to any exit so as to confuse the direction of exit, and no mirror or draperies shall be placed on or over exit doors.

Appliances in a means of egress

9.9.5.8. Fuel-fired appliances shall not be installed in a required means of egress or immediately over, under or within 2.4 m horizontally of such egress, unless the appliance is separated from the means of egress by an enclosure with a fire-resistance rating of not less than 1 hour.

Location of boiler rooms

9.9.5.9. Service rooms containing equipment subject to possible explosion, such as boilers designed to operate at a pressure in excess of 100 kPa, and certain types of refrigerating and transformer equipment, shall not be located under required exits.

SUBSECTION 9.9.6. DOORS IN A MEANS OF EGRESS

Scope

9.9.6.1. This Subsection applies to all doors in a means of egress except doors within dwelling units and exterior doors serving not more than 1 dwelling unit unless otherwise stated herein.

Door obstructions

9.9.6.2. Exit doors shall not decrease the required exit width by more than 50 mm for each full unit of exit width.

Doors over landings

9.9.6.3. Doors in their swing shall not reduce the effective width of exit stairs or landings to less than 750 mm, nor shall they reduce the effective width of an exit passageway to less than the required width.

Door closure headroom

9.9.6.4. No door closer or other device shall be installed in an exit in such a manner as to reduce the head room clearance to less than 1 980 mm.

Door height and width

9.9.6.5. An exit door or a door that opens to or is located in a public corridor or other facility providing access to exit from suites shall be not

less than 2 030 mm in height. Such doors shall be at least 810 mm in width when only 1 door leaf is installed in an opening, and 610 mm in width where more than 1 door leaf is provided in the width of an opening. The width of an individual door leaf shall not exceed 1 220 mm in such openings.

Direction of
door swing

9.9.6.6. Except as provided in Sentence 3.3. 1.8.(3), every door that opens onto a corridor or other facility that provides access to exit from a room or suite having an occupant load of more than 60 persons, and every door that is located within a corridor that is required to be separated from the remainder of the floor area by a fire separation shall swing on a vertical axis in the direction of exit travel and shall not open onto a step.

Size of landings

9.9.6.7. Except as permitted in Article 9.9.6.8., where an exit door opens onto a landing, the landing shall be not less than 300 mm wider and longer than the width of the door. Such doors either in the open or closed position shall be not closer than 300 mm to the nearest riser.

Exterior doors

9.9.6.8. Where there is a danger of blockage from ice or snow, an exit door may open onto not more than 1 step provided the rise of such step does not exceed 150 mm.

9.9.6.9. Except for a storage garage serving not more than 1 dwelling unit, and except for other accessory buildings where there is no danger to life safety, every required exit door, including an exit door serving a dwelling unit, shall swing on a vertical axis. Such door shall open in the direction of exit travel, except that a door serving not more than 1 dwelling unit is permitted to swing inward.

Revolving doors

9.9.6.10. Revolving doors used as exits shall conform to Article 3.4.7.12.

9.9.6.11. Exit doors and doors to suites shall be openable from the inside without requiring keys, special devices or specialized knowledge of the door opening mechanism.

Automatic
locking
prohibited

9.9.6.12. Except for hotels and motels, a door opening onto a public corridor which provides access to exit from suites shall be designed not to lock automatically when such doors are equipped with automatic self-closing devices.

9.9.6.13. Every exit door shall be designed and installed so that when the latch is released the door

will open in the direction of exit travel under a force of not more than 90 N applied at the knob or other latch releasing device.

SUBSECTION 9.9.7. ACCESS TO EXITS

General
requirements

9.9.7.1. Except as permitted in Articles 9.9.7.3. and 9.9.9.5., each suite in a floor area occupied by more than 1 suite shall have an exterior exit doorway or a doorway to a public corridor or to an exterior passageway, and from the point where such doorway enters the public corridor or exterior passageway, it shall be possible to go in opposite directions to each of 2 separate exits.

Dead-end
corridors

9.9.7.2.(1) The maximum length of a dead-end public corridor shall be measured from the end of the dead-end portion to a point where it is possible to go in opposite directions to each of 2 separate exits.

(2) The maximum occupant load served by the dead-end portion shall conform to Table 9.9.7.A. unless the areas served by the dead-end portion have a second and separate means of egress.

(3) Doors opening onto a dead-end public corridor shall be equipped with self-closing devices.

Table 9.9.7.A.
Forming Part of Article 9.9.7.2.

<u>Occupancy</u>	<u>Maximum Length of Dead-End Public Corridor, m</u>	<u>Maximum Occupant Load or Suites Served by Dead- End Public Corridor</u>
Group C	6	4 suites
Group D	9	30
Group E	9	30
Group F	9	30
Column 1	2	3

9.9.7.3. Dead-end public corridors in residential occupancies and business and personal services occupancies shall contain only suite door openings arranged so that not more than 2 such doors have to be passed to reach the nearest exit. The area of wired glass in such doors shall not exceed 645 cm²

Number of
egress doors

9.9.7.4.(1) At least 2 egress doors shall be provided where

(a) the area of a room or suite exceeds 200 m² in a Group D, E, F2 and F3 occupancy, or 150 m² in a Group C occupancy, or

(b) the distance measured from any point within a room or suite to the nearest door opening directly onto a public corridor exceeds 25 m.

(2) Doors in Sentence (1) shall be spaced so that in the event one doorway is made inaccessible by a fire within such a room or suite, the other doorway will provide safe egress.

Location of
access to exits

9.9.7.5. Required access to exit from suites shall not be through any other dwelling unit, service room or other occupancy.

9.9.7.6. Except for dwelling units, the travel distance from any point within the room or suite to the nearest egress door shall not exceed the maximum travel distance in Article 9.9.8.4.

SUBSECTION 9.9.8. EXITS FROM FLOOR AREAS

Travel distance

9.9.8.1. Except as provided in Articles 9.9.8.2. and 9.9.8.3., for the purposes of this Subsection, travel distance means the distance from any point in the floor area to an exit measured along the path of exit travel.

9.9.8.2. Where a room or suite is separated from the remainder of the floor area by a fire separation having a fire-resistance rating of at least 3/4 h, the travel distance may be measured from an egress door of the room or suite to the nearest exit.

9.9.8.3. Where a public corridor is at least 9 m in width and conforms to Sentence 3.4.2.3.(3), the travel distance may be determined in accordance with that Sentence.

Number of exits

9.9.8.4. Except as provided in Article 9.9.8.7. and Subsection 9.9.9., at least 2 exits shall be provided from every floor area, spaced so that the travel distance to the nearest exit is not greater than 40 m in the case of business and personal services occupancies and 30 m for all other occupancies. Where the floor area is sprinklered, the travel distance may be increased to 45 m for all occupancies.

Size of exits

9.9.8.5. Where more than 1 exit is required from a floor area, each exit shall be considered as contributing not more than 1/2 the required units of exit width.

Distance
between exits

9.9.8.6. Where more than 1 exit is required from a floor area, at least 2 exits shall be independent of each other and be placed remote from each other along the path of travel between them.

Single exit
permitted

9.9.8.7. Except as provided in Subsection 9.9.9., a single exit is permitted from each storey in buildings of 1 and 2 storeys in building height provided the floor area and travel distance requirements conform to those required in Article 9.9.7.4. and the total occupant load served by an exit facility does not exceed 60 persons.

Exit through
lobbies

9.9.8.8. Not more than 1 exit from a floor area above or below the first storey is permitted to lead through a lobby. Such lobby shall be not more than 4.5 m above grade, and the path of travel through the lobby to the outdoors shall not exceed 15 m. The lobby shall conform in all respects with the requirements for exits, except that rooms other than service rooms, storage rooms and rooms of residential or industrial occupancy may open directly onto such lobby. Where the lobby and adjacent occupancies that are permitted to open into the lobby are sprinklered, the fire separation between such occupancies and the lobby need not have a fire-resistance rating.

9.9.8.9. A mezzanine shall be provided with exits on the same basis as required for a floor area where a mezzanine is considered to be a storey in Subsection 9.10.4. or is of a size required to have more than one exit.

SUBSECTION 9.9.9. EGRESS FROM DWELLING UNITS

9.9.9.1. Except as provided in Articles 9.9.9.2. and 9.9.9.3., every dwelling unit shall have a sufficient number of exits or egress doors so that it shall not be necessary to travel up or down more than 1 storey to reach a level served by an exit or egress door to a public corridor or exterior passageway.

9.9.9.2. Where there is no dwelling unit above another dwelling unit, the travel limit from a floor level in a dwelling unit to an exit or egress door may exceed 1 storey where that floor level is served by an openable window providing an unobstructed opening of not less than 1 m in height and 0.55 m in width, located so that the sill is not more than 1 m above the floor and not more than 7 m above adjacent ground level.

9.9.9.3. The travel limit from a floor level in a dwelling unit to an exit or egress door may exceed 1

storey where that floor level has direct access to a balcony.

9.9.9.4. Except as provided in Article 9.9.7.3., where an egress door from a dwelling unit opens onto a public corridor or exterior passageway it shall be possible from the location where the egress door opens onto the corridor or exterior passageway to go in opposite directions to 2 separate exits unless the dwelling unit has a second and separate means of egress.

9.9.9.5. Where an egress door from a dwelling unit opens onto an exit stairway that serves more than 1 dwelling unit, or onto a public corridor served by a single exit stairway, or an exterior passageway or balcony served by a single exit stairway, the dwelling unit shall be provided with a second and separate means of egress.

SUBSECTION 9.9.10. EXIT SIGNS

Scope

9.9.10.1 This Subsection applies to all exits except those serving not more than 1 dwelling unit.

Location

9.9.10.2. Exits shall be located so as to be clearly visible or their locations shall be clearly indicated.

9.9.10.3.(1) Every exit door other than the main entrance to a room or building shall have an exit sign placed over it when the exit serves,

(a) a 3 storey building,

(b) a building having an occupant load greater than 150, or

(c) a room or floor area that has a fire escape as part of a required means of egress.

Exit direction signs

9.9.10.4. Exit direction signs shall be placed in corridors and passageways where necessary to indicate the direction of exit travel.

9.9.10.5. Exit signs shall be installed so as to be visible from the exit approach.

9.9.10.6.(1) Exit signs shall have the word EXIT or the words EXIT/SORTIE in red letters on a contrasting background or white letters on a red background when the sign is internally lighted, and white letters on a red background or red letters on a white background when the sign is externally lighted.

(2) Lettering shall be made with at least 19 mm wide strokes and be at least 150 mm high when the signs are externally lighted, and at least 114 mm high if the sign is internally lighted.

(3) Where an exit sign having the word EXIT is installed in conformance with Sentence (1), an additional sign having the word SORTIE may be installed.

Illumination

9.9.10.7. Provisions shall be made to illuminate exit signs required in Article 9.9.10.3. by an electrical circuit separate from other electrical circuits.

9.9.10.8. In 3-storey buildings any part of an exit ramp or stair that continues down to a basement past an exterior exit door shall be clearly marked to indicate that it does not lead to an exit, where there is a possibility that the portion below ground level may be mistaken as the direction of exit travel.

SUBSECTION 9.9.11. LIGHTING

Scope

9.9.11.1. This Subsection applies to the lighting of all exits except those serving not more than 1 dwelling unit.

Means of egress lighting

9.9.11.2. Every exit and public corridor shall be provided with lighting in accordance with the requirements in Article 9.35.2.9.

Emergency lighting

9.9.11.3. Emergency lighting shall be provided in exits, corridors used by the public and principal routes providing access to exit in an open floor area where such exits, corridors and access routes are below grade, are windowless or are required in buildings in Subsection 9.10.17. to have a fire alarm system.

9.9.11.4. Emergency lighting required in Article 9.9.11.3. shall be provided from a source of energy separate from the electrical supply for the building. Such lighting shall be designed to be automatically actuated when the electric lighting in the affected area is interrupted. Illumination from such lighting shall be at least 10 lx for a period of at least 1/2 h. Where incandescent lighting is provided, lighting equal to 1 W/m² of floor area shall be considered to meet this requirement.

9.9.11.5. Where self-contained emergency lighting units are used, they shall conform to CSA C22.2 No. 141, "Unit Equipment for Emergency Lighting."

SECTION 9.10 FIRE PROTECTION

SUBSECTION 9.10.1. GENERAL

Support of
noncombustible
construction

9.10.1.1. An assembly required to be of noncombustible construction shall be supported by noncombustible construction.

9.10.1.2. For the purposes of this Section, roofs with slopes of 60° or more to the horizontal and which are adjacent to a room or space intended for occupancy shall be considered as a wall.

Fuel dispensing

9.10.1.3. Except as provided in Sentence 3.3.7.7.(2), facilities for the dispensing of fuel shall not be installed in any building.

Commercial
cooking
equipment

9.10.1.4. In kitchens containing commercial cooking equipment used in processes producing grease-laden vapours, the equipment shall be designed and installed in conformance with Part 6.

Tents, etc.

9.10.1.5. Tents, air-supported structures, transformer vaults, walkways, elevators and escalators shall conform to Part 3.

Openings
through floors

9.10.1.6. Openings through floors that are not protected by shafts or closures shall be protected in conformance with Subsection 3.2.8.

Special
occupancies

9.10.1.7. Where rooms or spaces are intended for an assembly occupancy, or for the storage, manufacture or use of hazardous or explosive material, such rooms or spaces shall conform to Part 3.

Roof top
appliances

9.10.1.8. Where fuel-fired appliances are installed on a roof, such appliances shall be installed in conformance with Part 6.

Sprinklers and
standpipes

9.10.1.9. Where sprinkler, standpipe and hose systems are installed, they shall be installed in conformance with Part 3.

Chutes and
shafts

9.10.1.10. Chutes and shafts shall conform to Subsection 3.5.3. except where they are entirely contained within a dwelling unit.

Basements

9.10.1.11. Basements containing more than 1 storey or exceeding 600 m² in area shall conform to the requirements contained in Part 3.

SUBSECTION 9.10.2. OCCUPANCY CLASSIFICATION

Building
classification

9.10.2.1. Except as provided in Article 9.10.2.2., every building or part thereof shall be classified

Table 9.10.2.A.
Forming Part of Article 9.10.2.1

CLASSIFICATION BY GROUP OR DIVISION OF TYPICAL OCCUPANCIES			
Group	Division	Description of Major Occupancies	Examples
C	--	<u>Occupancies</u> used for sleeping accommodations excluding those covered in Group B, <u>institutional occupancies</u> , including:	Apartments Boarding houses Clubs, residential Colleges, residential Convents Dormitories Group homes Hostels Hotels Houses Lodging houses Monasteries Motels Schools, residential
D	--	<u>Occupancies</u> for conducting business and the rendering of professional and personal services, including:	Banks Barber and hair-dressing shops Beauty parlours Dental offices Dry cleaning, self-service not employing flammable or explosive solvents or cleaners Laundry, self-service Medical offices Offices Police stations without detention quarters Radio stations Small tool and appliance rental and service Telephone exchanges
E	--	<u>Occupancies</u> for the displaying, or selling of retail goods, wares or merchandise, including:	Department stores Exhibition halls Markets Shops Stores Supermarkets
Col. 1	2	3	4

Table 9.10.2.A. (Cont'd)

CLASSIFICATION BY GROUP OR DIVISION OF TYPICAL OCCUPANCIES			
Group	Division	Description of Major Occupancies	Examples
F	2	<u>Occupancies</u> in which the <u>combustible</u> content is more than 50 kg/m ² or 1 200 MJ/m ² of floor surface and not classified in Division 1 of this Group, including:	Aircraft hangars Box factories Candy plants Cold storage plants Dry cleaning plants not using flammable or explosive solvents or cleaners Electrical substations Factories Freight depots Helicopter landing areas on roofs Laboratories Laundries except self-service Mattress factories Planing mills Printing plants <u>Repair garages</u> Salesrooms <u>Self-service storage buildings</u> Service stations Storage rooms Television studios not admitting a viewing audience Tire storage Warehouses Wholesale rooms Woodworking factories Workshops
F	3	<u>Occupancies</u> in which the <u>combustible</u> content is not more than 50 kg/m ² or 1 200 MJ/m ² of floor surface, including:	Creameries Factories Laboratories Power plants Sales rooms Sample display rooms <u>Storage garages</u> including open air parking garages Storage rooms Warehouses Workshops
Col. 1	2	3	4

according to its major occupancy as belonging to one of the groups or divisions described in Table 9.10.2.A.

9.10.2.2. Children's custodial homes and convalescent homes for ambulatory occupants living as a single housekeeping unit in a dwelling unit with sleeping accommodation for not more than 10 persons may be classified as residential occupancies (Group C).

9.10.2.3. Except as permitted in Articles 9.10.2.4. and 9.10.2.5., in any building containing more than 1 major occupancy in which one major occupancy is located entirely above another, the requirements of Article 9.10.8.1. for each portion of the building containing a major occupancy shall be applied to that portion as if the entire building was of that major occupancy.

9.10.2.4. Where one major occupancy is located above another, the fire-resistance rating of the floor assembly between such major occupancies shall be determined on the basis of the requirements in Article 9.10.8.1. for the occupancy below.

9.10.2.5. In a building containing more than 1 major occupancy, where the aggregate area of all major occupancies in a particular group or division does not exceed 10 per cent of the floor area on the storey on which they are located, they need not be considered as major occupancies for the purposes of Articles 9.10.8.1. and 9.10.2.3. provided they are not classified as Group F, Division 2 occupancies.

SUBSECTION 9.10.3. RATINGS

Test methods

9.10.3.1. Where a fire-resistance rating or a fire-protection rating is required in this Section for an element of a building, such rating shall be determined in conformance with Tables 9.10.3.A. and 9.10.3.B., Chapter 2 of the Supplement to the NBC1985, or in conformance with the test methods described in Part 3.

Flame-spread rating

9.10.3.2. Where a flame-spread rating is required in this Section for an element of a building, such rating shall be determined in accordance with the test methods described in Part 3, or in accordance with Chapter 2 of the Supplement to the NBC 1985. Unless such rating is referred to herein as a "surface flame-spread rating," it shall apply to any surface of the element being considered that would be exposed by cutting through it as well as to the exposed surface of the element.

Table 9.10.3.A.
Forming Part of Articles 9.10.3.1., 9.11.2.1 and 9.11.2.2.

FIRE AND SOUND RESISTANCE OF WALLS					
Type of Wall	No.	Description	Finish on Each Side (1)	Fire-Resistance Rating, h	Sound Rating (3)
Solid brick	1	90 mm thick walls of shale, clay, concrete or sand-lime brick	None	1	II(2)
	2	140 mm thick walls of shale, clay, concrete or sand-lime brick	None	2 1/2	II(2)
	3	190 mm thick walls of shale, clay, concrete or sand-lime brick	None	4	I(2)
Hollow concrete block (normal weight aggregate)	4	90 mm	None	3/4	III
	5	Same as 4	A or B	1 1/2	III
	6	Same as 4	C or D	1 1/2	II
	7	140 mm	None	1	II(2)
	8	Same as 7	A	1 1/2	II
	9	Same as 7	B, C or D	2	II
	10	Same as 7 with mineral fibre between resilient channels on at least 1 side	A	1 1/2	I
	11	190 mm	None	1 1/2	II(2)
	12	Same as 11	A or B	2	I
	13	Same as 11	C or D	3	I
Concrete	14	150 mm	None	3	I(2)
	15	200 mm	None	4	I(2)
Interior wood stud, single row	16	38 mm x 89 mm studs 400 mm o.c.	C or D	1	III
	17	38 mm x 89 mm studs 400 mm o.c., mineral fibre with a mass of at least 1.2 kg/m ² in cavity	A	3/4	III
	18	Same as 17 with resilient metal channels on at least 1 side	A	3/4	II
Interior stud, 2 rows staggered on 38mm x 140 mm plate	19	Two rows 38 mm x 89 mm studs, each set 400 mm or 600 mm o.c. staggered on common 38 mm x 140 mm plate, mineral fibre on each side	C or D	1(4)	II
	20	Two rows 38 mm x 89 mm studs, each set 400 mm or 600 mm o.c. staggered on common 38 mm x 140 mm plate, mineral fibre with a mass of at least 1.2 kg/m ² on each side	A	3/4	II
Column 1	2	3	4	5	6

Table 9.10.3.A. (Cont'd)

FIRE AND SOUND RESISTANCE OF WALLS					
Type of Wall	No.	Description	Finish on Each Side (1)	Fire-Resistance Rating, h	Sound Rating (3)
Interior wood, 2 rows on separate plates	21	Two rows 38 mm x 89 mm studs, each set 400 mm or 600 mm o.c. on 38 mm x 89 mm plates set 25 mm apart, mineral fibre on 1 side	C or D	1(4)	II
	22	Two rows 38 mm x 89 mm studs, each set 400 mm or 600 mm o.c. on 38 mm x 89 mm plates set 25 mm apart, mineral fibre with a mass of at least 1.2 kg/m ² on each side	A	3/4	II
Exterior, wood stud,	23	38 mm x 89 mm or 38 mm x 140 mm studs spaced up to 600 mm o.c., mineral fibre with a mass of at least 1.2 kg/m ² , wall sheathing and siding	A (interior side)	3/4	--
	24	Same as 23	C or D (interior side)	1	--
Non-load-bearing steel stud	25	90 mm steel studs spaced up to 600 mm o.c.	C	3/4	III
	26	Same as 25	D	1	III
	27	Same as 25 with mineral fibre filling cavity	C	1	II
	28	Same as 25 with mineral fibre filling cavity	D	1(4)	II
Column 1	2	3	4	5	6

Addendum to Table 9.10.3.A.:

- (1) The finishes designated by letter refer to the following:
- A = 12.7 mm gypsum board, taped joints,
 - B = 12.7 mm gypsum-sand plaster,
 - C = 15.9 mm special fire-resistant Type X gypsum board conforming to CSA A82.27, "Gypsum Board Products", and
 - D = 19 mm gypsum-sand plaster on 9.5 mm gypsum lath or metal lath.
- (2) Sound ratings listed assume that walls have their surfaces sealed by at least 2 coats of paint or other surface finish described in Section 9.30 to prevent airborne sound leakage.

- (3) Rating I signifies constructions with sound transmission class ratings of 50 or more.
 Rating II signifies constructions with sound transmission class ratings of 45 to 50.
 Rating III signifies constructions with sound transmission class ratings of less than 45.
- (4) Mineral fibre is required for sound resistance only and need not be provided to achieve the fire-resistance rating. Mineral fibre includes fibre processed from rock, slag or glass.

Table 9.10.3.B.
 Forming Part of Articles 9.10.3.1 and 9.11.2.1.

FIRE AND SOUND RESISTANCE OF FLOORS, CEILINGS AND ROOFS(2)					
Type of Assembly	No.	Description	Ceiling Finish (1)	Fire Resistance Rating, h	Sound Rating (3)
Concrete slabs	1	90 mm reinforced concrete with 20 mm minimum cover over reinforcing steel	None	1	II
	2	130 mm reinforced concrete with 25 mm minimum cover over reinforcing steel	None	2	I
Open web steel joists	3	Open web steel joists with minimum 50 mm thick concrete deck, ceiling secured to furring channels spaced not more than 600 mm o.c. wired to underside of joists	C or D	1	I
Wood floor joists	4	19 mm T&G lumber or 15.5 mm plywood or wafer-board subfloor with mineral fibre between joists spaced 400 mm o.c. Ceiling finish attached to resilient channels	C	3/4	II
	5	Same as 4	D	1	II
	6	19 mm T&G lumber or 15.5 mm plywood or wafer-board subfloor over joists spaced 400 mm o.c., 50 mm concrete topping	C	3/4	II
	7	Same as 6	D	1	II
Column 1	2	3	4	5	6

Table 9.10.3.B. (Cont'd)

FIRE AND SOUND RESISTANCE OF FLOORS, CEILINGS AND ROOFS(2)					
Type of Assembly	No.	Description	Ceiling Finish (1)	Fire Resistance Rating, h	Sound Rating (3)
	8	Same as 6 with mineral fibre between joists and ceiling finish attached to resilient channels	C	3/4	II
	9	Same as 6 with mineral fibre between joists and ceiling finish attached to resilient channels	D	1	I
Rating provided by membrane only(4)	10	Supporting members spaced not more than 600 mm o.c.	C	1/2	--
	11	Same as 10	C (2 layers)	1	--
Wood floor trusses spaced not more than 600 mm o.c.	12	19 mm T&G lumber or 15.5 mm plywood or wafer-board subfloor over 38 mm x 89 mm framing members with metal connector plates at least 1 mm thick with teeth at least 8 mm in length	C	3/4	III
Wood roof trusses spaced not more than 600 mm o.c.	13	38 mm x 89 mm framing members with connector plates at least 1 mm thick with teeth at least 8 mm in length	C	3/4	--
Column 1	2	3	4	5	6

Addendum to Table 9.10.3.B.:

- (1) The finishes designated by letter refer to the following:
 C = 15.9 mm special fire-resistant Type X gypsum board conforming to CSA A82.27, "Gypsum Board Products," and
 D = 19 mm gypsum-sand plaster on 9.5 mm gypsum lath or metal lath.
- (2) Fire-resistance ratings for floor assemblies may be applied to roof assemblies having the same ceiling finish provided that, where wood joists are used, the roof sheathing consists of not less than 12.5 mm plywood or waferboard or 19 mm lumber. Where steel joists are used, the ratings are based on the assumption that the roof deck consists of not less than 50 mm of concrete.

- (3) Rating I signifies constructions with sound transmission class ratings of 50 or more.
Rating II signifies constructions with sound transmission class ratings of 45 to 50.
Rating III signifies constructions with sound transmission class ratings of less than 45.
- (4) See Article 9.10.9.14.

Floors, roofs
and ceilings

9.10.3.3. Floor, roof and ceiling assemblies shall be rated for exposure to fire on the underside.

Exterior walls

9.10.3.4. Exterior walls shall be rated for exposure to fire from inside the building. Such walls need not comply with the temperature rise limitations required by the standard tests referred to in Article

9.10.3.1. if such walls have a limiting distance of at least 1.2 m, and due allowance is made for the effects of heat radiation in accordance with the requirements in Part 3.

Firewalls

9.10.3.5. Firewalls and interior vertical fire separations required to have fire-resistance ratings shall be rated for exposure to fire on each side.

Suspended
membrane
ceilings

9.10.3.6. Where a ceiling construction has a suspended membrane ceiling with lay-in panels or tiles which contribute to the required fire-resistance rating, hold down clips or other means shall be provided to prevent the lifting of such panels or tiles in the event of a fire.

SUBSECTION 9.10.4. BUILDING SIZE DETERMINATION

Mezzanines
as storeys

9.10.4.1. Mezzanines shall not be considered as storeys for the purpose of determining building height where the aggregate area of mezzanine floors does not exceed 10 per cent of the floor area of the storey in which they are located.

9.10.4.2. Mezzanines shall not be considered as storeys for the purpose of determining building height where they occupy an aggregate area not exceeding 40 per cent of the area of the room or the storey in which they are located provided the space above the mezzanine floor has have no visual obstructions more than 1 070 mm above such floors.

9.10.4.3. Where more than 1 tier of mezzanine is provided in a storey, each tier additional to the first shall be considered as a storey.

9.10.4.4. Where a basement is used primarily as a storage garage, the basement may be considered as a

separate building for the purposes of this Section provided the floor above the basement and the exterior walls of the basement above the adjoining ground level are constructed as fire separations of masonry or concrete having a fire-resistance rating of at least 2 h.

Roof-top
enclosures

9.10.4.5. Roof-top enclosures provided for elevator machinery, stairways and service rooms, used for no purpose other than for service to the building, shall not be considered as a storey in calculating the building height.

SUBSECTION 9.10.5. PERMITTED OPENINGS IN WALL AND CEILING MEMBRANES

9.10.5.1. Except as permitted in Articles 9.10.5.2. and 9.10.5.3., a membrane forming part of an assembly required to have a fire-resistance rating shall not be pierced by openings into the assembly unless the assembly has been tested and rated for such openings.

Permitted
openings

9.10.5.2. A wall or ceiling membrane forming part of an assembly required to have a fire-resistance rating may be pierced by openings for electrical and similar service outlet boxes provided such outlet boxes are tightly fitted. Where such boxes are located on both sides of walls required to provide a fire-resistance rating, they shall be offset where necessary to maintain the integrity of the fire separation.

Openings for
ducts

9.10.5.3. A membrane ceiling forming part of an assembly required to have a fire-resistance rating may be pierced by openings into noncombustible ducts within the ceiling space provided such openings are located not less than 2 m apart and do not constitute more than 1 per cent of the ceiling area within a fire compartment. Individual openings shall not exceed 900 cm² in area, and if greater than 130 cm² shall be protected by a fire stop flap as described in Article 9.10.13.16.

SUBSECTION 9.10.6. CONSTRUCTION TYPES

Non-combustible
construction

9.10.6.1. Where a wall, floor or roof assembly is required to be of noncombustible construction, combustible elements shall be limited in conformance with the requirements in Article 3.1.4.5.

Heavy timber
construction

9.10.6.2. Heavy timber construction shall be considered to have 3/4 h fire-resistance rating when it is constructed in accordance with the requirements for heavy timber construction in Part 3.

SUBSECTION 9.10.7. PROTECTION OF STEEL MEMBERS

- Protection of steel members 9.10.7.1. Except as permitted in Articles 9.10.7.2 to 9.10.7.8., structural steel members used in construction required to have a fire-resistance rating shall be protected to provide the required fire resistance.
- Lintels 9.10.7.2. Steel lintels in loadbearing walls spanning not more than 2 m and steel lintels in non-loadbearing walls spanning not more than 3 m need not be protected.
- Shelf angles 9.10.7.3. The bottom flanges of shelf angles and plates that are not part of the structural frame need not be protected as required in Article 9.10.7.1.
- Elevator shafts 9.10.7.4. Steel members around elevator shaft doorways or supporting elevator and dumbwaiter guides, counterweights and other such equipment when entirely enclosed in a shaft and not forming part of the structural frame of the building need not be protected.
- Stairs and escalators 9.10.7.5. Steel members for stairways and escalators that are not part of the structural frame of the building need not be protected.
- Exterior steel 9.10.7.6. Steel members of porches, balconies, stairways, fire escapes, cornices, marquees and other similar constructions need not be protected provided they are outside of the building.
- 9.10.7.7. Except in buildings of medium hazard industrial occupancy or mercantile occupancy, steel members not less than 3 m from a property line or a centreline of a public thoroughfare and which are at least 1 m away from an unprotected opening need not be protected.
- Loadbearing walls, columns and arches 9.10.7.8. Loadbearing steel or concrete members such as columns, beams and arches at least 3 m from a property line or centreline of a public thoroughfare and which are shielded from a possible fire within the building by construction having a fire-resistance rating at least equivalent to that required for the loadbearing walls, columns and arches in Subsection 9.10.8. need not be protected provided such members are located so that they are not closer to an unprotected opening than the maximum horizontal projection of the member from the wall face.

**SUBSECTION 9.10.8. FIRE RESISTANCE IN RELATION TO
OCCUPANCY AND HEIGHT**

Fire-resistance
ratings

9.10.8.1. Except as otherwise provided in this Subsection, the fire-resistance ratings of floors and roofs shall conform to Table 9.10.8.A.

Sprinklered
buildings

9.10.8.2. The requirements in Table 9.10.8.A. for roof assemblies to have a fire-resistance rating may be waived in sprinklered buildings where the sprinkler system conforms to Sentence 3.2.2.8.(1).

Support of
rated assemblies

9.10.8.3. Except as otherwise provided in this Subsection, all loadbearing walls, columns and arches in the storey immediately below a floor or roof assembly shall have a fire-resistance rating of not less than that required for the supported floor or roof assembly.

9.10.8.4. Construction supporting a service room need not conform to Article 9.10.8.3.

**Table 9.10.8.A.
Forming Part of Article 9.10.8.1.**

MINIMUM REQUIRED FIRE-RESISTANCE RATINGS FOR STRUCTURAL MEMBERS AND ASSEMBLIES, h				
<u>Major Occupancy</u>	<u>Maximum Building Height, storeys</u>	<u>Building Element</u>		
		<u>Floors Except Floors over Crawl Spaces</u>	<u>Mezzanine Floors</u>	<u>Roofs</u>
<u>Residential (Group C)</u>	3	3/4	3/4	—
<u>All other occupancies</u>	2	3/4	—	—
	3	3/4	3/4	3/4
Column 1	2	3	4	5

Mezzanines

9.10.8.5. Mezzanines required to be counted as storeys in Articles 9.10.4.1. to 9.10.4.3. shall be constructed in conformance with the requirements of Column 4 of Table 9.10.8.A.

9.10.8.6. Where a portion of a roof supports an occupancy, that portion shall be constructed as a fire separation having a fire-resistance rating conforming to the rating shown for floors in Column 3 of Table 9.10.8.A.

Floors of
exterior
passageways

9.10.8.7. The floor assembly of every exterior passageway used as part of a means of egress shall have a fire-resistance rating of at least $3/4$ h or be of noncombustible construction, except that no fire-resistance rating is required in buildings of Group D, E or F major occupancy that are not greater than 2 storeys in building height.

Crawl space

9.10.8.8. Where a crawl space exceeds 1.8 m in height or is used for any occupancy or as a plenum in combustible construction or for the passage of flue pipes, it shall be considered as a basement in applying the requirements in Article 9.10.8.1.

Floors within
dwelling units

9.10.8.9. No fire-resistance rating is required for floors or mezzanines within a dwelling unit where there is no dwelling unit above another dwelling unit or above another major occupancy.

9.10.8.10. The fire-resistance ratings of floors, roofs, loadbearing walls, columns and arches need not conform to this Subsection if such assemblies conform in all respects to the appropriate requirements in Articles 3.2.2.27 to 3.2.2.37. and 3.2.2.42 to 3.2.2.51.

SUBSECTION 9.10.9. FIRE SEPARATIONS BETWEEN ROOMS AND SPACES WITHIN BUILDINGS

Scope

9.10.9.1. This Subsection applies to fire separations required between rooms and spaces in buildings except between rooms and spaces within a dwelling unit.

9.10.9.2. Except as permitted in Article 9.10.9.3., a wall or floor assembly required to be a fire separation shall be constructed as a continuous barrier against the spread of fire.

Closures

9.10.9.3. Except as permitted in Articles 9.10.9.8. to 9.10.9.10. and 9.10.9.26. to 9.10.9.29., openings in required fire separations shall be protected with closures conforming to Subsection 9.10.13.

Floor assemblies

9.10.9.4. Except as permitted in Articles 9.10.9.5. to 9.10.9.7., all floor assemblies shall be constructed as fire separations.

9.10.9.5. Floor assemblies contained within dwelling units need not be constructed as fire separations.

9.10.9.6. Floor assemblies for which no fire-resistance rating is required by Subsection 9.10.8. and floors of mezzanines not required to be counted as storeys in Articles 9.10.4.1. to 9.10.4.3 need not be constructed as fire separations.

Crawl spaces

9.10.9.7. Where a crawl space is not required by Article 9.10.8.8. to be constructed as a basement, the floor above it need not be constructed as a fire separation.

Interconnected floor spaces

9.10.9.8. Except as permitted in Article 9.9.4.10., interconnected floor spaces shall conform to the requirements of Subsection 3.2.8.

Fire stopping of pipes and ducts

9.10.9.9. Piping, tubing, ducts, chimneys, wiring, conduit, electrical outlet boxes and other similar service equipment that penetrate a required fire separation shall be tightly fitted or fire stopped to maintain the integrity of the separation.

Pipes, ducts, outlet boxes or similar service equipment

9.10.9.10. Every pipe, duct, electrical conduit, electrical outlet box or other similar service equipment that partly or wholly penetrates a required fire separation shall be noncombustible unless the separation has been tested incorporating such equipment, except that electrical or other similar wiring not exceeding 25 mm in overall diameter or enclosed in an noncombustible conduit, and combustible electrical outlet boxes that have a face area of not more than 160 cm² shall be permitted without such tests. Where wires are grouped together, the 25 mm diam shall apply to the group.

Support of combustible construction

9.10.9.11. Combustible construction that abuts on or is supported by a noncombustible fire separation shall be constructed so that its collapse under fire conditions will not cause collapse of the fire separation.

9.10.9.12. Beams and joists framed into a masonry or concrete fire separation shall not reduce the thickness of the fire separation to less than 100 mm of masonry or concrete.

Concealed horizontal space

9.10.9.13. Except as provided in Article 9.10.9.14., a horizontal service space or other concealed space located above a required vertical fire separation shall be divided at the fire separation by an equivalent fire separation within the space.

9.10.9.14. Where a horizontal service space or other concealed space is located above a required vertical fire separation other than a vertical shaft, such space need not be divided as required in Article 9.10.9.13. provided the construction between such space and the space below is constructed as a fire separation having a fire-resistance rating at least equivalent to that required for the vertical fire separation, except that where the vertical fire separation is not required to have a fire-resistance rating greater than 3/4 h, the fire-resistance rating of the ceiling may be reduced to 1/2 h.

Separation of
residential
occupancies

9.10.9.15. Except as provided in 9.10.9.16., residential occupancies shall be separated from all other major occupancies by a fire separation having a fire-resistance rating of at least 1 h.

9.10.9.16. A major occupancy classified as a residential occupancy shall be separated from other major occupancies classified as mercantile or medium hazard industrial occupancies by a fire separation having a fire-resistance rating of at least 2 h, except that where not more than 2 dwelling units are located in a building containing a mercantile occupancy, such mercantile occupancy shall be separated from the dwelling units by a fire separation having not less than 1 h fire-resistance rating.

9.10.9.17. Not more than 1 suite of residential occupancy shall be contained within a building classified as a Group F, Division 2 major occupancy.

9.10.9.18. Except as provided in Articles 9.10.9.19., 9.10.9.20., and 9.10.20.2., suites in residential occupancies shall be separated from adjacent rooms and suites by a fire separation having a fire-resistance rating of at least 3/4 h.

Boarding and
lodging houses

9.10.9.19. Sleeping rooms in boarding, lodging or rooming houses where sleeping accommodation is provided for not more than 8 boarders or lodgers and do not contain cooking facilities need not be separated from the remainder of the floor area as required in Article 9.10.9.18. where the sleeping rooms form part of the proprietor's residence.

9.10.9.20. Dwelling units that contain 2 or more storeys including basements shall be separated from the remainder of the building by a fire separation having a fire-resistance rating of not less than 1 h.

9.10.9.21. Except as provided in Article 9.10.9.22., public corridors shall be separated from the remainder of the building by a fire separation having at least a 3/4 h fire-resistance rating.

9.10.9.22.(1) In other than residential occupancies, where a floor area is sprinklered,

- (a) no fire-resistance rating is required between a public corridor and the remainder of the building where the corridor does not exceed 5 m in unobstructed width.
- (b) no fire separation is required for such corridors where they exceed 5 m in unobstructed width.

(2) Such sprinkler systems shall be electrically supervised and, upon operation, shall transmit an alarm signal to the fire department when the public corridor serves a mercantile occupancy or a medium hazard industrial occupancy.

Separation of
garages

9.10.9.23.(1) Except as provided in Articles 9.10.9.24. and 9.10.9.25., a storage garage shall be separated from other occupancies by a fire separation having not less than a 1 1/2 h fire-resistance rating.

(2) A repair garage shall be separated from other occupancies by a fire separation having not less than a 2 h fire-resistance rating and such separation between a repair garage and a residential occupancy shall have no opening through it.

Separation of
storage garages,
5 cars or fewer

9.10.9.24. Except as permitted in Article 9.10.9.25., storage garages containing 5 cars or fewer shall be separated from other occupancies by a fire separation of not less than 1 h.

9.10.9.25.(1) Where a storage garage serves only the dwelling unit to which it is attached or built in, it shall be considered as part of that dwelling unit, and the fire separation required in Article 9.10.9.24. need not be provided between the garage and the dwelling unit,

- (a) where the construction between the garage and the dwelling unit provides an effective barrier to gas and exhaust fumes; and
- (b) every door between the garage and dwelling unit conforms to Article 9.10.13.21.

(2) Where an attic space is common to 2 dwelling units and to the garage, the attic space adjacent to the garage shall be separated from such common attic space by a membrane at least equivalent to Type B, C or D finishes in Table 9.10.3.A., or the ceiling of the garage shall be protected with a similar membrane.

Combustible
piping in
fire separation

9.10.9.26. Except as permitted in Articles 9.10.9.27. to 9.10.9.29., combustible piping shall not be used where any part of the piping system partly or wholly penetrates a fire separation required to have a fire-resistance rating or penetrates a membrane that forms part of an assembly required to have a fire-resistance rating.

9.10.9.27. Combustible piping not located in a vertical shaft is permitted to penetrate a fire separation required to have a fire-resistance rating or a membrane that forms part of an assembly required to have a fire-resistance rating provided the rated assembly incorporating the penetration will resist the passage of flames when subjected to the standard heat exposure criteria in CAN4-S101, "Standard Methods of Fire Endurance Tests of Building Construction and Materials" at a pressure on the exposed side of at least 50 Pa (gauge) greater than on the unexposed side.

9.10.9.28. Combustible drain piping is permitted to penetrate a horizontal fire separation provided it leads directly from a noncombustible floor-mounted water closet through a concrete floor slab.

9.10.9.29. Combustible piping need not conform to Article 9.10.9.26., provided

- (a) the combustible piping is located only on one side of a vertical side of the vertical fire separation and is not located in a vertical shaft, or
- (b) where the combustible piping penetrates a vertical or horizontal fire separation and the fire compartment on each side of the fire separation is sprinklered.

9.10.9.30. Where a vertical service space contains an exhaust duct that serves more than 1 fire compartment, the duct shall have a fan located at or near the exhaust outlet to ensure that the duct is under negative pressure, and such individual fire compartments shall not have fans that exhaust directly into the duct in the vertical service space.

SUBSECTION 9.10.10. SERVICE ROOMS

Application

9.10.10.1. This Subsection applies to service rooms in all buildings except rooms located within a dwelling unit.

9.10.10.2. The fire-resistance rating requirements in this Subsection do not apply to the floor assembly immediately below a service room.

Fire separation

9.10.10.3. Except as required in Articles 9.10.10.4., 9.10.10.7. and 9.10.10.11., service rooms shall be separated from the remainder of the building by a fire separation having a fire-resistance rating of at least 1 h when the floor area containing the service room is not sprinklered.

9.10.10.4. Where a room contains a limited quantity of service equipment and the service equipment does not constitute a fire hazard, the requirements in Article 9.10.10.3. shall not apply.

Separation of fuel-fired appliances

9.10.10.5. Except as provided in Articles 9.10.10.6. and 9.10.10.7., fuel-fired appliances other than fireplaces shall be located in a service room or service space designed for that purpose, and separated from the remainder of the building by a fire separation having not less than a 1 h fire-resistance rating.

9.10.10.6. Fuel-fired space-heating appliances, space-cooling appliances and service water heaters that serve only a room or suite, or serve a building having a building area of not more than 400 m² and not more than 2 storeys in building height, need not be separated from the remainder of the building as required in Article 9.10.10.5. where the equipment has been designed for such use.

Incinerator rooms

9.10.10.7. Service rooms containing incinerators shall be separated from the remainder of the building by a fire separation having a fire-resistance rating of not less than 2 h.

Incinerators

9.10.10.8. The design, construction, installation and alteration of each indoor incinerator shall conform to NFPA 82, "Incinerators, Waste and Linen Handling Systems and Equipment."

Chimneys for incinerators

9.10.10.9. Every incinerator shall be connected to a chimney flue conforming to the requirements in Section 9.21. Such chimney flue shall serve no other appliance.

9.10.10.10. An incinerator shall not be located in a room with other fuel-fired appliances.

Storage rooms

9.10.10.11. Rooms for the temporary storage of combustible refuse in all occupancies or for public storage in residential occupancies shall be separated from the remainder of the building by a fire separation having not less than a 1 h fire-resistance rating, except that a 3/4 h fire separation is permitted where the fire-resistance rating of the floor assembly is not required to exceed 3/4 h, or where such rooms are sprinklered.

SUBSECTION 9.10.11. FIREWALLS

Firewalls

9.10.11.1. Except as provided in Articles 9.10.11.2. and 9.10.11.3., a party wall on a property line shall be constructed as a firewall.

Party walls
between
dwelling units

9.10.11.2.(1) In a building of residential occupancy in which there is no dwelling unit above another dwelling unit, a party wall on a property line between dwelling units need not be constructed as a firewall provided it is constructed as a fire separation having not less than a 1 h fire-resistance rating.

(2) Such fire separation walls shall,

- (a) provide continuous protection from the top of the footings to the underside of the roof deck,
- (b) except as permitted in Article 9.10.5.2., and Sentences 9.10.9.10.(1) and (2), contain no service components such as plumbing, flues and ducts, and
- (c) be completed before any contiguous service spaces are constructed.

(3) Any space between the top of such wall and the roof deck shall be tightly sealed by caulking with mineral wool or noncombustible material.

9.10.11.3. Where the garage is detached from the dwelling unit but attached to another garage on the adjacent property, the party wall so formed shall be constructed as a fire separation having at least a fire-resistance rating of 3/4 hour.

Members framing
into firewalls

9.10.11.4.(1) Except as permitted in Sentence (2), where structural framing members are connected to or supported on a firewall and such members have fire-resistance ratings less than that required for

the firewall, the connections and supports for such members shall be designed so that the collapse of the framing members during a fire will not cause the collapse of the firewall.

(2) Sentence (1) does not apply when a firewall consists of 2 separate wall assemblies each tied to its respective building frame but not to each other provided each wall assembly is constructed as a fire separation having $1/2$ the fire-resistance rating required for the firewall in Sentences (3) and (4) and designed so that the collapse of one wall assembly will not cause collapse of the other.

Grade of fire
separation

(3) Every required firewall which separates a building or buildings with floor areas containing a Group E or a Group F, Division 1 or 2 major occupancy shall be constructed as a fire separation of noncombustible construction having a fire-resistance rating of at least 4 h, except that where the upper portion of a firewall separates floor areas containing other than Group E or Group F, Division 1 or 2 major occupancies, the fire-resistance rating of the upper portion of the firewall may be reduced to 2 h.

(4) Every required firewall which separates a building or buildings with floor areas containing major occupancies, other than Group E or Group F, Division 1 or 2 shall be constructed as a fire separation of noncombustible construction having a fire-resistance rating of at least 2 h.

Fire-resistance
rating

(5) Except for closures, the required fire-resistance rating of every firewall shall be provided by masonry or concrete.

Continuity

(6) Every firewall shall extend from the ground continuously through all storeys of a building or buildings so separated, except that where a firewall is located above a basement storage garage conforming to Article 3.2.1.2., the firewall may terminate at the floor assembly immediately above the storage garage.

Parapets

(7) Except as provided in Sentence (8) and (9), every firewall shall extend above the roof surface to form a parapet not less than

(a) 150 mm in height for a firewall required to have a fire-resistance rating of 2 h, and

(b) 900 mm in height for a firewall required to have a fire-resistance rating of 4 h.

(8) A firewall may terminate on the underside of a reinforced concrete roof slab provided

(a) the roof slab on both sides of the firewall has a

(i) 1 h fire-resistance rating if a firewall is required to have a 2 h fire-resistance rating, or

(ii) 2 h fire-resistance rating if a firewall is required to have a 4 h fire-resistance rating, and

(b) there are no concealed spaces within the roof slab in that portion immediately above the firewall.

(9) Where a firewall separates 2 buildings with roofs at different elevations, the firewall need not extend above the upper roof surface to form a parapet where the difference in elevation between the 2 roofs so separated is greater than 3 m.

Support

(10) A firewall may be supported on the structural frame of the building in buildings of noncombustible construction provided such supporting frame has a fire-resistance rating at least equal to that required for the firewall.

Penetrations for service

(11) Piping, ducts and conduit shall be installed so that the collapse of such piping, ducts and conduit will not cause collapse of the firewall.

Openings

(12) Openings in a firewall shall conform to Articles 3.1.6.4. & 3.1.6.5. and the size limits described in Sentences 3.1.6.4.(6) and (7) and the aggregate width of openings shall not exceed 25 per cent of the entire length of the firewall.

(13) Where the external walls of 2 buildings meet at a firewall at an angle of less than 135°, the requirements of Article 3.2.3.10. shall apply.

(14) Combustible material shall not extend across the end of a firewall.

Combustible projections

(15) When buildings are separated by a firewall, combustible projections on the exterior of one building, such as balconies, platforms, canopies, eave projections and stairs, that extend outward beyond the end of the firewall, shall not be permitted within 2.4 m of combustible projections and window or door openings of the adjoining building.

**SUBSECTION 9.10.12. PREVENTION OF FIRE SPREAD AT
EXTERIOR WALLS AND BETWEEN
STOREYS**

Separation of
openings

9.10.12.1. In buildings of mercantile or medium hazard industrial occupancy, the exterior openings in one storey shall be separated from openings in an adjacent storey by not less than 1 m of wall, or a canopy or balcony not less than 1 m in width having a fire-resistance rating at least equal to that required for the floor assembly, except that the rating need not exceed 1 h.

9.10.12.2. Except as provided in Articles 9.10.1.6., 9.10.9.8. and 9.10.12.3., the portions of a floor area or mezzanine that do not terminate at an exterior wall, a firewall or a vertical shaft, shall terminate at a vertical fire separation having a fire-resistance rating at least equal to that required for the floor assembly that terminates at the separation.

9.10.12.3. A mezzanine need not terminate at a vertical fire separation where the mezzanine is not required to be considered as a storey in Articles 9.10.4.1. to 9.10.4.3.

9.10.12.4. Where a wall in a building is exposed to a fire hazard from an adjoining roof of a separate unsprinklered fire compartment in the same building, the roof shall contain no skylights within a horizontal distance of 5 m of the windows in the exposed wall.

Exterior walls
meeting at an
angle

9.10.12.5. Except as provided in Article 9.10.14.14., where exterior walls of a building meet at an external angle of less than 135°, the horizontal distance from an opening in one wall to another opening in the other wall shall be not less than 1.2 m where the openings are in different fire compartments.

Protection of
soffits

9.10.12.6.(1) Except as provided in Article 9.10.12.7., where there is a common attic or roof-space above more than 2 suites of residential occupancy, and the soffit of a roof overhang adjacent to this space is located over a window or door opening within 2.5 m of the overhang, the soffit shall be protected by

- (a) noncombustible material having a minimum thickness of 0.38 mm and a melting point of at least 650°C,
- (b) not less than 11 mm thick plywood,

(c) not less than 12.7 mm thick waferboard, or

(d) not less than 11 mm thick lumber.

(2) The soffit protection required in Sentence (1) shall extend the full width of the opening and to at least 1.2 m on either side of it, with no unprotected opening into the soffit within this limit.

(3) Where an eave overhang is completely separated from the remainder of the attic or roof space by fire stopping, the requirements in Sentence (1) do not apply.

(4) Where an attic or roof space, including its adjoining eave overhangs, is separated by compartments such that the resulting spaces are not common to more than 2 suites of residential occupancy, the requirements in Sentence (1) do not apply.

9.10.12.7. Where the eaves are completely separated from the remainder of the roof space by fire-stopping, the requirement for soffit protection in Article 9.10.12.6. does not apply.

SUBSECTION 9.10.13. DOORS, DAMPERS AND OTHER CLOSURES IN FIRE SEPARATIONS

Table 9.10.13.A.

Forming Part of Article 9.10.13.1.

FIRE-PROTECTION RATINGS FOR CLOSURES	
Required Fire-Resistance Rating of <u>Fire Separation</u> , h	Required <u>Fire-Protection Rating</u> of <u>Closure</u> , h
1/2 or 3/4	1/3(1)
1	3/4(1)
1 1/2	1
2	1 1/2
3	2
4	3
Column 1	2

Note to Table 9.10.13.A.:

(1) See Articles 9.10.13.2. and 9.10.13.3.

Closures

9.10.13.1. Except as provided in Article 9.10.13.2., openings in required fire separations shall be protected with a closure conforming to Table 9.10.13.A. and shall be installed in conformance with

Chapters 2 to 13 of NFPA 80, "Fire Doors and Windows" unless otherwise specified herein.

9.10.13.2.(1) A 45 mm thick solid core wood door conforming to CAN4-S113, "Standard Specification for Wood Core Doors Meeting the Performance Required by CAN4-S104 for Twenty Minute Fire-Rated Closure Assemblies", may be used

(a) between a public corridor and a suite, or

(b) where a minimum fire protection rating of 1/3 h is permitted.

(2) Such doors shall have not more than a 6 mm clearance beneath and not more than 3 mm at the sides and top.

Doors in a
public means of
egress

9.10.13.3. Doors required to provide a 1/3 h fire-protection rating or permitted to be 45 mm solid core wood shall be mounted in a wood frame of at least 38 mm thickness where the frame has not been tested and rated.

9.10.13.4. Doors forming part of an exit or a public means of egress shall conform to Subsection 9.9.6. in addition to this Subsection.

Wired glass

9.10.13.5. Wired glass conforming to Article 9.7.3. 1. which has not been tested in accordance with Article 9.10.3.1. is permitted as a closure in a vertical fire separation required to have a fire-resistance rating of not more than 1 h provided such glass is not less than 6 mm thick and is mounted in conformance with Article 9.10.13.6.

9.10.13.6. Wired glass described in Article 9.10.13.5 shall be mounted in fixed steel frames having a minimum metal thickness of 1.35 mm and providing a glazing stop of at least 20 mm on each side of the glass. Individual panes of such glass shall not exceed 0.84 m² in area or 1.4 m in height or width, and the area of glass not structurally supported by mullions shall not exceed 7.5 m².

9.10.13.7. Steel door frames forming part of a closure in a fire separation, including anchorage requirements, shall conform to CAN4-S105, "Standard Specification for Fire Door Frames Meeting the Performance Required by CAN4-S104."

9.10.13.8. Glass block that has not been tested in accordance with Article 9.10.3.1. is permitted as a closure in a fire separation required to have a

fire-resistance rating of not more than 1 h provided each horizontal joint is reinforced with metal.

Maximum
closure size

9.10.13.9. Closures in fire separations shall not exceed 11 m² in area and 3.7 m in height or width.

9.10.13.10. Every swing type door in a fire separation shall be equipped with a latch.

Self-closing
devices

9.10.13.11. Except as described in Article 9.10.13.12., every door in a fire separation shall have a self-closing device.

9.10.13.12. Self-closing devices described in Article 9.10.13.11. are not required in doors between public corridors, other than dead-end corridors, and suites in business and personal services occupancies.

Hold-open
devices

9.10.13.13. Where hold-open devices are used on doors in required fire separations, they shall be installed in accordance with Sentence 3.1.6.8.(3).

Service room
doors

9.10.13.14. Swing-type doors shall open into service rooms containing fuel-fired equipment where such doors lead to public corridors or rooms used for assembly. Such doors shall swing outward from such rooms in all other cases.

Fire dampers

9.10.13.15. Except as permitted in Articles 9.10.5.3. and 9.10.13.17. to 9.10.13.20., ducts that connect 2 fire compartments or penetrate an assembly required to be a fire separation with a fire-resistance rating shall be equipped with a fire damper in conformance with Article 3.1.6.6.

Fire stop
flaps

9.10.13.16. Fire stop flaps in ceiling membranes required in Article 9.10.5.3. shall be equipped with corrosion-resistant pins and hinges and such flaps shall be designed to close automatically at the temperature 30°C above the maximum temperature that will normally be encountered in the system.

9.10.13.17. A fire damper is not required where a noncombustible branch duct pierces a required fire separation provided the duct has a melting point of at least 760°C, a cross-sectional area less than 130 cm² and supplies only air-conditioning units or combined air-conditioning and heating units discharging air at not more than 1.2 m above the floor.

9.10.13.18. A fire damper is not required where a noncombustible branch duct pierces a required fire separation around an exhaust duct riser in which the

air flow is upward provided the branch duct has a melting point of at least 760°C, the branch duct is carried up inside the riser at least 500 mm and the exhaust duct is under negative pressure as described in Article 9.10.9.30.

9.10.13.19. Noncombustible ducts that penetrate a fire separation separating a vertical service space from the remainder of the building need not be equipped with a fire damper at the fire separation provided the ducts have a melting point above 760°C and each individual duct exhausts directly to the outside at the top of the vertical service space.

9.10.13.20. A duct serving commercial cooking equipment and piercing a required fire separation need not be equipped with a fire damper at the fire separation.

Doors between
garages and
dwelling units

9.10.13.21.(1) A door between an attached or built-in garage and a dwelling unit shall be tight fitting and weather-stripped to provide an effective barrier against the passage of gas and exhaust fumes and shall be fitted with a self-closing device.

(2) A doorway between an attached or built-in garage and a dwelling unit shall not be located in a room intended for sleeping.

(3) Where there is a door between and attached or built-in garage and a dwelling unit, the level of the floor immediately adjacent to the door on the dwelling unit side shall be at least 150 mm above the level of the floor immediately adjacent to the door on the garage side.

9.10.13.22. Where a 45 mm thick solid core wood door is permitted in a required fire separation, the requirement for a noncombustible sill in NFPA 80, "Fire Doors and Windows" shall not apply.

Door stops

9.10.13.23. Where a door is installed so that it may damage the integrity of a fire separation if its swing is unrestricted, door stops shall be installed to prevent such damage.

SUBSECTION 9.10.14. SPATIAL SEPARATIONS BETWEEN BUILDINGS

9.10.14.1. Except as provided in Articles 9.10.14.2. to 9.10.14.7., the maximum percentage of unprotected openings in an exposing building face shall conform to Table 9.10.14.A. or to Subsection 3.2.3., whichever is the least restrictive for the occupancy being considered. The area of an exposing

building face shall be calculated as the total area of exterior wall facing in 1 direction on any side of a building measured from the finished ground level to the uppermost ceiling, except that where a building is divided by fire separations into fire compartments, the area of exposing building face may be calculated for each fire compartment provided such separations have not less than a 2 h fire-resistance rating in the case of mercantile and medium hazard industrial occupancies and 3/4 h for other occupancies.

9.10.14.2. Where there is no fire department or where a fire department is not organized, trained and equipped to meet the needs of the community, the limiting distance determined from Article 9.10.14.1. shall be doubled.

9.10.14.3.(1) The limiting distance shown in Table 9.10.14.A. may be reduced provided it is not less than the square root of the aggregate area of unprotected openings in an exposing building face in residential occupancies, business and personal services occupancies and low hazard industrial occupancies, and is not less than the square root of twice the aggregate area of unprotected openings in mercantile occupancies and medium hazard industrial occupancies.

Determination
of allowable
unprotected
openings

(2) For the purposes of Article 9.10.14.1. and Subclause 9.10.14.8.(1)(b) an exposing building face may be taken as its projection onto a vertical plane located so that no portion of an unprotected opening in the exterior wall of the building is between such vertical plane and the line to which the limiting distance is measured and, in such cases, the area of unprotected openings shall be determined from the projection onto this plane of the unprotected openings occurring in the exterior wall.

Determination
of fire-
resistance
rating of
exposing
building face

(3) For the purposes of Articles 9.10.3.4., 9.10.14.7., and this subsection except for Article 9.10.14.1., an exposing building face may be taken as its projection onto a vertical plane located so that no portion of the exterior wall of the building is between such vertical plane and the line to which the limiting distance is measured and, in such cases, the area of unprotected openings shall be determined from the projection onto this plane of the unprotected openings occurring in the exterior wall.

Allowance for
wired glass,
sprinklers

9.10.14.4. The maximum area of unprotected openings may be doubled where the building is sprinklered, or where the unprotected openings are glazed with wired

glass in steel frames or glass blocks as described in Articles 9.10.13.5. and 9.10.13.8.

Table 9.10.14.A.
Forming Part of Article 9.10.14.1.

MAXIMUM PERCENTAGE OF UNPROTECTED OPENINGS IN EXTERIOR WALLS													
Occupancy Classi- fication of Build- ing	Maximum Area of Exposing Building Face, m ²	Limiting Distance											
		Less than 1.2 m	1.2 m	1.5 m	2.0 m	4.0 m	6.0 m	8.0 m	10.0 m	12.0 m	16.0 m	20.0 m	25.0 m
<u>Residential</u> <u>business</u> and <u>personal</u> <u>services,</u> and <u>low</u> <u>hazard</u> <u>Industrial</u>	30	0	7	9	12	39	88	100	--	--	--	--	--
	40	0	7	8	11	32	69	100	--	--	--	--	--
	50	0	7	8	10	28	57	100	--	--	--	--	--
	100	0	7	8	9	18	34	56	84	100	--	--	--
	Over 100	0	7	7	8	12	19	28	40	55	92	100	--
<u>Mercantile</u> and <u>medium</u> <u>hazard</u> <u>Industrial</u>	30	0	4	4	6	20	44	80	100	--	--	--	--
	40	0	4	4	6	16	34	61	97	100	--	--	--
	50	0	4	4	5	14	29	50	79	100	--	--	--
	100	0	4	4	4	9	17	28	42	60	100	--	--
	Over 100	0	4	4	4	6	10	14	20	27	46	70	100
Column 1	2	3	4	5	6	7	8	9	10	11	12	13	14

9.10.14.5. An exposing building face is permitted to have unlimited unprotected openings in the first storey when the exposing building face faces a street and has a limiting distance of at least 9 m.

Open-air
storeys

9.10.14.6. When a storage garage has all storeys constructed as open-air storeys, the exposing building face of such garage is permitted to have unlimited unprotected openings provided the storage garage has a limiting distance of at least 3 m.

9.10.14.7. Except as permitted in Articles 9.10.14.8. to 9.10.14.12., each exposing building face and any exterior wall located above an exposing building face that encloses an attic or roof space shall be constructed in conformance with Table 9.10.14.B. and Subsection 9.10.8.

Fire resistance
of exterior walls

9.10.14.8.(1) Except as required in Article 9.10.14.13., in buildings containing only dwelling units in which there is no dwelling unit above another dwelling unit, the exposing building face,

- (a) may be of the combustible construction, except that such exposing building face must be clad with noncombustible material where the limiting distance is less than 0.6 m,
- (b) shall, where the limiting distance is less than 1.2 m, have
- (i) a fire-resistance rating of 3/4 h, and
- (ii) no unprotected openings, and
- (c) shall conform to the requirements for openings in Article 9.10.14.1. where the limiting distance is 1.2 m or greater.

Table 9.10.14.B.
Forming Part of Article 9.10.14.7.

MINIMUM CONSTRUCTION REQUIREMENTS FOR EXPOSING BUILDING FACES				
<u>Occupancy Classification of Building</u>	<u>Maximum Percentage of Unprotected Openings permitted, per cent</u>	<u>Minimum Required Fire-Resistance Rating, h</u>	<u>Type of Construction Required</u>	<u>Type of Cladding Required</u>
<u>Residential, business and personal services and low hazard industrial</u>	0 — 10	1	Noncombustible	Noncombustible
	11 — 25	1	Combustible or noncombustible	Noncombustible
	Greater than 25	3/4	Combustible or noncombustible	Combustible or noncombustible
<u>Mercantile and medium hazard industrial</u>	0 — 10	2	Noncombustible	Noncombustible
	11 — 25	2	Combustible or noncombustible	Noncombustible
	Greater than 25	1	Combustible or noncombustible	Combustible or noncombustible
Column 1	2	3	4	5

Zero lot line

(2) Where the spatial separation between dwelling units on adjoining properties is registered on the titles of both properties, the spatial separation may be calculated as if the dwelling units were constructed on the same property.

Combustible projections

9.10.14.9. Except for buildings containing 1 or 2 dwelling units only, combustible projections on the

exterior of a wall that are more than 1 m above ground level, such as balconies, platforms, canopies, eave projections and stairs, that could expose an adjoining building to fire spread, shall not be permitted within 1.2 m of a property line or an imaginary line between 2 buildings on the same property.

Fire resistance of
a garage serving
a dwelling unit

9.10.14.10. Except as required in Article 9.10.14.13., the exposing building face of a detached garage that serves 1 dwelling unit only shall have a fire-resistance rating of at least 3/4 h, except that no fire-resistance rating is required where the limiting distance is 0.6 m or greater. The exterior cladding of such detached garages is not required to be noncombustible regardless of the limiting distance. The percentage of window openings permitted in the exposing building face of such detached garages shall conform to the requirements for unprotected openings in Article 9.10.14.1. Where a detached garage serves only one dwelling unit and is located on the same property as that dwelling unit, then the requirements for limiting distance shall not apply between the garage and the dwelling unit.

9.10.14.11. Heavy timber and steel columns need not conform to the requirements of Article 9.10.14.7. provided the limiting distance is at least 3 m.

Unrated
noncombustible
construction
permitted

9.10.14.12. Except as required in Article 9.10.14.13., in buildings of 1 storey in building height of noncombustible construction classified as low hazard industrial occupancy which are used only for low fire load occupancies such as power generating plants or plants for the manufacture or storage of noncombustible materials, non-loadbearing wall components need not have a minimum fire-resistance rating provided the limiting distance is 3 m or more.

9.10.14.13. Where a paid or volunteer fire department is not available, the limiting distances required in Articles 9.10.14.8., 9.10.14.10 and 9.10.14.12. shall be doubled.

Firewalls

9.10.14.14. Where 2 exterior walls meet at a firewall at an external angle of less than 135°, the construction of each exterior wall adjacent to the intersection and the unprotected openings in each exterior wall adjacent to the intersection shall conform to Article 3.2.3.10.

9.10.14.15. Openings in every wall that have a limited distance of less than 1.2 m shall be protected by closures of other than wire glass or

glass block as required for the fire-resistance rating of the wall.

SUBSECTION 9.10.15. FIRE STOPS

9.10.15.1. Concealed spaces in interior walls, ceilings and crawl spaces shall be separated by fire stops from concealed spaces in exterior walls and attic or roof spaces.

Fire stopping
within walls

9.10.15.2. Except as permitted in Articles 9.10.15.3. and 9.10.15.4., fire stops shall be provided to block off concealed spaces within wall assemblies, including spaces created by furring, at each floor level, and at each ceiling level where the ceiling contributes to part of the required fire-resistance rating, and at other locations within the wall, so that the distance between fire stops does not exceed 20 m horizontally and 3 m vertically.

9.10.15.3. Fire stops in 9.10.15.2. are not required provided the exposed construction materials within the wall space, including insulation, but not including wiring, piping or similar services, have a flame-spread rating of not more than 25.

9.10.15.4. Fire stops in Article 9.10.15.2. are not required provided the wall space is filled with insulation.

9.10.15.5. Fire stops shall be provided at all interconnections between concealed vertical and horizontal spaces in interior coved ceilings, drop ceilings and soffits where the exposed construction materials within the concealed spaces have a surface flame-spread rating greater than 25.

Stairs

9.10.15.6. Fire stops shall be provided at the top and bottom of each run of stairs where they pass through a floor containing concealed space in which the exposed construction materials within the space have a surface flame-spread rating greater than 25.

Concealed
spaces

9.10.15.7. In unsprinklered buildings of combustible construction, every concealed space created by a ceiling, roof space or unoccupied attic space shall be separated by fire stops into compartments of not more than 300 m² in area where such space contains exposed construction materials having a surface flame-spread rating greater than 25. No dimension of such space shall exceed 20 m.

9.10.15.8. Concealed spaces in mansard or gambrel style roofs, exterior cornices, balconies and

canopies of combustible construction in which the exposed construction materials within the space have a surface flame-spread rating exceeding 25 shall have vertical fire stops at intervals of not more than 20 m and at points where such concealed spaces extend across the ends of required vertical fire separations.

9.10.15.9. Fire stops shall be constructed of not less than 0.38 mm sheet steel, 6 mm asbestos board, 12.7 mm gypsum wallboard, 12 mm plywood or waferboard, with joints having continuous support, 2 layers of 19 mm lumber with joints staggered, 38 mm lumber or materials conforming to Sentence 3.1.9.4.(1).

9.10.15.10. Where fire stops are pierced by pipes, ducts or other elements, the effectiveness of the fire stops shall be maintained around such elements

SUBSECTION 9.10.16. FLAME SPREAD LIMITS

Flame-spreading
rating of
interior
finishes

9.10.16.1. Except as otherwise provided in this Subsection, the exposed surface of every interior wall and ceiling, including skylights and glazing, shall have a surface flame-spread rating of not more than 150.

9.10.16.2. Doors need not conform to Article 9.10.16.1.

9.10.16.3. RESERVED.

Means of egress
ceilings

9.10.16.4. Not less than 90 per cent of the exposed surface of every ceiling in an exit or unsprinklered ceiling in a public corridor shall have a surface flame-spread rating of not more than 25.

Exit walls

9.10.16.5. Except as provided in Article 9.10.16.6., not less than 90 per cent of the exposed surfaces of every wall in an exit shall have a surface flame-spread rating of not more than 25.

9.10.16.6. At least 75 per cent of the wall surface of a lobby used as an exit in Article 9.9.8.8. shall have a surface flame-spread rating of not more than 25.

Walls in a
public access to
exit

9.10.16.7. At least 90 per cent of the total wall surface in any unsprinklered public corridor shall have a surface flame-spread rating of not more than 75 or not less than 90 per cent of the upper half of

such walls shall have a surface flame-spread rating of not more than 25.

9.10.16.8. Combustible doors, skylights, glazing and combustible light diffusers and lenses shall not be considered in the calculation of wall and ceiling areas in this Subsection.

9.10.16.9. Where a public corridor or a corridor used by the public contains an occupancy, the interior finish materials used on the walls or ceiling of such occupancy shall have a surface flame-spread rating in conformance with that required for public corridors.

Plastic light
diffusers and
lenses

9.10.16.10. Light diffusers and lenses having flame-spread ratings that exceed those permitted for the ceiling finish, shall conform to the requirements of Subsection 3.1.11.

Combustible
skylights

9.10.16.11. Individual combustible skylights in corridors required to be separated from the remainder of the building by fire separations shall not exceed 1 m² in area and shall be spaced at least 1.2 m apart.

Protection of
foamed plastic

9.10.16.12. Where foamed plastic is used in an assembly permitted to be of combustible construction, it shall be protected on the interior surfaces by one of the finishes described in Subsections 9.30.4. to 9.30.12. or, in buildings that do not contain a Group C major occupancy, by sheet metal not less than 0.38 mm in thickness, mechanically fastened to the supporting assembly independent of the insulation and having a melting point of not less than 650°C.

Walls in
bathrooms

9.10.16.13. In an assembly required to be of noncombustible construction, foamed plastics shall be protected in conformance with Article 3.1.4.5.

9.10.16.14. The interior finish of walls and ceilings in bathrooms within suites of residential occupancy shall have a surface flame-spread rating of not more than 200.

Duct covers
and liners

9.10.16.15. Where a covering or a lining is used with a duct, such lining or covering shall have a flame-spread rating conforming to Part 6.

Exterior
passageways

9.10.16.16. Where an exterior exit passageway provides the only means of egress from the rooms or suites it serves, the wall and ceiling finishes of that passageway, including the soffit beneath and the guard on the passageway, shall have a surface flame-spread rating of not more than 25, except that up to 10 per cent of the total wall area and 10 per

cent of the total ceiling area is permitted to have a surface flame-spread rating of not more than 150.

SUBSECTION 9.10.17. ALARM AND DETECTION SYSTEMS

Access through
a firewall

9.10.17.1. Where access is provided through a firewall, the requirements in this Subsection shall apply to the floor areas on both sides of the firewall as if they were in the same building.

Fire alarm
systems

9.10.17.2. Except as provided in Article 9.10.17.3., a fire alarm system shall be installed in every building that contains more than 3 storeys, including storeys below the first storey, or where the total occupant load exceeds 300, or when the occupant load for any major occupancy in Table 9.10.17.A. is exceeded.

Table 9.10.17.A.
Forming Part of Article 9.10.17.2.

<u>Major Occupancy Classification</u>	<u>Occupant Load Above which Fire Alarm System Is Required</u>
<u>Residential</u>	10 (sleeping accommodation)
<u>Business and personal services, Mercantile</u>	150 above or below the <u>first storey</u>
<u>Low or medium hazard industrial</u>	75 above or below the <u>first storey</u>
Column 1	2

9.10.17.3. A fire alarm system is not required in a residential occupancy where an exit or public corridor serves not more than 4 suites or where each suite has direct access to an exterior exit facility leading to ground level.

Smoke detectors
in means of
egress

9.10.17.4. Where a fire alarm system is required, every public corridor in buildings of residential occupancy and every exit stair shaft shall be provided with smoke detectors.

Automatic
detectors in
storage and
service rooms

9.10.17.5. Except as provided in Article 9.10.17.6., buildings required to have a fire alarm system shall be equipped with heat detectors or smoke detectors in storage rooms, service rooms, elevator shafts, chutes, janitors' closets and any other rooms where hazardous substances are intended to be used or stored.

9.10.17.6. Heat detectors and smoke detectors described in Article 9.10.17.5. are not required in dwelling units or in sprinklered buildings in which the sprinkler system is electrically supervised and equipped with a water flow alarm.

9.10.17.7. Except for a recirculating air system serving not more than 1 dwelling unit, where a fire alarm system is required to be installed, every recirculating air handling system shall be designed to prevent the circulation of smoke upon a signal from a duct-type smoke detector where such system supplies more than 1 suite on the same floor or serves more than 1 storey.

9.10.17.8. Except as provided in Article 9.10.17.9., where a fire alarm system is required in more than 1 major occupancy, the system shall be designed so that the actuation of any alarm initiating device in one occupancy shall cause an alarm signal to be transmitted to all other occupancies.

9.10.17.9. Except as provided in Article 9.10.17.10., where a vertical fire separation having a fire-resistance rating of at least 1 h separates a portion of a building from the remainder of the building and there are no openings through the fire separation other than those for piping, tubing, wiring and conduit, the requirements for fire alarm and detection systems may be applied to each portion so separated as if it were a separate building.

9.10.17.10. The permission in Article 9.10.17.9. to consider separated portions of a building as separate buildings does not apply to service rooms and storage rooms.

9.10.17.11. Fire alarm, fire detection and smoke detection devices and systems, and their installation, shall conform to Part 3.

SUBSECTION 9.10.18. SMOKE ALARMS

Smoke alarms

9.10.18.1. Smoke alarms conforming to ULC-S531, "Standard for Smoke Alarms" shall be installed in each dwelling unit and in each sleeping room not within a dwelling unit.

9.10.18.2. Smoke alarms within dwelling units shall be installed between each sleeping area and the remainder of the dwelling unit; and where the sleeping areas are served by hallways, the smoke alarms shall be installed in the hallway.

9.10.18.3. The smoke alarms in Articles 9.10.18.1. and 9.10.18.2 shall be installed on or near the ceiling or on the walls between 150 mm and 300 mm below the ceiling in conformance with manufacturers installation instructions.

Connection to
electrical
circuit

9.10.18.4. Smoke alarms shall be installed by permanent connections to an electrical circuit and shall have no disconnect switch between the overcurrent circuit device and the smoke alarm. Where the building is not supplied with electrical power, smoke alarms may be battery operated.

9.10.18.5. Where more than one smoke alarm is required in a dwelling unit, the smoke alarms shall be wired so that the activation of one alarm will cause all alarms within the dwelling unit to sound.

9.10.18.6. Where instructions are necessary to describe the maintenance and care required for smoke alarms to ensure continuing satisfactory performance, they shall be posted in a location where they will be readily available to the occupants for reference.

SUBSECTION 9.10.19. FIRE FIGHTING

Access wall
panels

9.10.19.1. Except as provided in Article 9.10.19.2., a window or access panel providing an opening not less than 1 100 mm high and 550 mm wide and having a sill height of not more than 900 mm above the floor shall be provided on the second and third storeys of every building in at least 1 wall facing on a street if such storeys are not sprinklered. Such access panels shall be readily openable from both inside and outside or be glazed with plain glass.

Exception

9.10.19.2. Access panels as described in Article 9.10.19.1. need not be provided in buildings containing only dwelling units where there is no dwelling unit above another dwelling unit.

Access to
basements

9.10.19.3. Except in basements serving not more than 1 dwelling unit, each unsprinklered basement exceeding 25 m in length or width shall be provided with direct access to the outdoors to at least 1 street. Such access may be provided by a door, window or other means that provides an opening not less than 1 100 mm high and 550 mm wide, the sill height of which shall not be more than 900 mm above the floor. Access may also be provided by an interior stair accessible from the outdoors.

9.10.19.4. Access for fire department equipment shall be provided to each building by means of a street, private roadway or yard.

9.10.19.5. Where access to a building as required in Article 9.10.19.4. is provided by means of a roadway or yard, the design and location of such roadway or yard shall take into account connection with public thoroughfares, weight of fire fighting equipment, width of roadway, radius of curves, overhead clearance, location of fire hydrants, location of fire department connections and vehicular parking.

SUBSECTION 9.10.20. FIRE PROTECTION FOR CONSTRUCTION CAMPS

9.10.20.1. Except as provided in Articles 9.10.20.2. to 9.10.20.11., construction camps shall conform to Subsections 9.10.1. to 9.10.19.

9.10.20.2. Except for sleeping rooms within dwelling units, sleeping rooms in construction camps shall be separated from each other and from the remainder of the building by a fire separation having at least a 1/2 h fire-resistance rating.

9.10.20.3. Except in a dwelling unit, a floor assembly in a construction camp building separating the first storey and the second storey shall be constructed as a fire separation having at least a 1/2 h fire-resistance rating.

9.10.20.4. Walkways of combustible construction connecting buildings shall be separated from each connected building by a fire separation having at least a 3/4 h fire-resistance rating.

9.10.20.5. Construction camp buildings shall be separated from each other by a distance of at least 10 m except as otherwise permitted in Subsection 9.10.14.

9.10.20.6. Except in dwelling units and except as provided in Article 9.10.20.7., the surface flame-spread rating of wall and ceiling surfaces in corridors and walkways, exclusive of doors, shall not exceed 25 over at least 90 per cent of the exposed surface area and not more than 150 over the remaining surface area.

9.10.20.7. Except within dwelling units, corridors that provide access to exit from sleeping rooms and having a fire-resistance rating of at least 3/4 h shall have a flame-spread rating conforming to the appropriate requirements in Subsection 9.10.16.

9.10.20.8. Except in dwelling units, corridors providing access to exit from sleeping rooms in construction camp buildings with sleeping accommodation for more than 10 persons shall be provided with a smoke detector connected to the building alarm system.

9.10.20.9. Each construction camp building shall be provided with portable fire extinguishers in conformance with the appropriate provincial or municipal regulations or, in the absence of such regulations, in conformance with the National Fire Code of Canada 1985.

9.10.20.10. Every construction camp building providing sleeping accommodation for more than 30 persons shall be provided with a hose station that is protected from freezing and is equipped with a hose of sufficient length so that every portion of the building is within the range of a hose stream. Each hose station shall be located near an exit.

9.10.20.11. Hoses referred to in Article 9.10.20.10. shall be at least 19 mm inside diam and shall be connected to a central water supply or to a storage tank having a capacity of at least 4 500 L with a pumping system capable of supplying a flow of at least 5 L/s at a gauge pressure of 300 kPa.

SECTION 9.11 SOUND CONTROL

SUBSECTION 9.11.1. SOUND TRANSMISSION CLASS RATING (AIRBORNE SOUND)

Test methods

9.11.1.1. Sound transmission class ratings for construction shall be determined in accordance with ASTM E90, "Laboratory Measurement of Airborne-Sound Transmission Loss of Building Partitions" or with ASTM E336, "Measurement of Airborne Sound Insulation in Buildings."

SUBSECTION 9.11.2. REQUIRED SOUND CONTROL LOCATIONS (AIRBORNE SOUND)

9.11.2.1. Except as provided in Article 9.11.2.2, every dwelling unit, and every suite in hotels and motels, shall be separated from every other space in a building in which noise may be generated, by construction providing a sound transmission class rating of at least 45, or shall have a sound rating of I or II as described in Tables 9.10.3.A. and 9.10.3.B.

9.11.2.2. Where a dwelling unit is adjacent to an elevator shaft or a refuse chute, the separating

construction shall have a sound transmission class rating of at least 50, or shall have a sound rating of I as described in Table 9.10.3.A.

9.11.2.3. Building services located in an assembly required to have a sound transmission class rating shall be installed in a manner that will not decrease the required rating of the assembly.

SECTION 9.12 EXCAVATION

SUBSECTION 9.12.1. GENERAL

Top soil

9.12.1.1. The top soil and vegetable matter in all unexcavated areas under a building shall be removed. In localities where termites are known to occur, all stumps, roots and other wood debris shall be removed from the soil to a minimum depth of 300 mm in unexcavated areas under a building.

9.12.1.2. The bottom of every excavation shall be free of all organic material.

Water removed

9.12.1.3. Excavations shall be kept free of standing water.

Freezing

9.12.1.4. The bottom of excavations shall be kept from freezing throughout the entire construction period.

9.12.1.5.(1) Every excavation shall be undertaken in such a manner to prevent damage to adjacent property, existing structures, utilities, roads and sidewalks at all stages of construction.

(2) Material shall not be placed nor shall equipment be operated or placed in or adjacent to an excavation in a manner that may endanger the integrity of the excavation or its supports.

9.12.1.6. All sides of an excavation, supported and unsupported, shall be continuously maintained and protected from possible deterioration by construction activity or by the action of frost, rain and wind.

SUBSECTION 9.12.2. DEPTH

9.12.2.1. Excavations for foundations shall extend to undisturbed soil.

9.12.2.2. Except as provided in Articles 9.12.2.4. and 9.12.2.5, the minimum depth of foundations below finished ground level shall conform to Table 9.12.2.A.

9.12.2.3. The minimum depth of foundations for exterior concrete steps with more than 2 risers shall conform to Article 9.12.2.2. Concrete steps with 1 and 2 risers may be laid on ground level.

9.12.2.4. The foundation depths required in Article 9.12.2.2. may be decreased where experience with local soil conditions shows that lesser depths are satisfactory, or where the foundation is designed for lesser depths.

9.12.2.5. The foundation depths required in Article 9.12.2.2. do not apply to foundations for buildings whose superstructure will not be damaged by differential soil movement caused by frost action, or for accessory buildings of not more than 1 storey in building height and not more than 50 m² in building area.

SUBSECTION 9.12.3. BACKFILL

Placing

9.12.3.1. Backfill shall be placed to avoid damaging the drainage tile or the waterproofing of walls.

Table 9.12.2.A.
Forming Part of Article 9.12.2.2.

MINIMUM DEPTHS OF FOUNDATIONS				
Type of Soil	Foundation Containing Heated <u>Basement</u> or Crawl Space		Foundation Containing No Heated Space	
	Good Soil Drainage to at Least the Depth of Frost Penetration	Poor Soil Drainage	Good Soil Drainage to at Least the Depth of Frost Penetration	Poor Soil Drainage
Rock	No limit	No limit	No limit	No limit
Coarse grained soils	No limit	No limit	No limit	Below the depth of frost penetration
Silt	No limit	No limit	Below the depth of frost penetration	Below the depth of frost penetration
Column 1	2	3	4	5

Table 9.12.2.A. (Cont'd)

MINIMUM DEPTHS OF FOUNDATIONS				
Type of Soil	Foundation Containing Heated <u>Basement</u> or Crawl Space		Foundation Containing No Heated Space	
	Good Soil Drainage to at Least the Depth of Frost Penetration	Poor Soil Drainage	Good Soil Drainage to at Least the Depth of Frost Penetration	Poor Soil Drainage
Clay or soils not clearly defined	1.2 m	1.2 m	1.2 m but not less than the depth of frost penetration	1.2 but not less than the depth of frost penetration
Column 1	2	3	4	5

Grading

9.12.3.2. Backfill shall be graded to prevent drainage towards the foundation after settling.

Boulders

9.12.3.3. Backfill within 600 mm of the foundation shall be free of deleterious debris and boulders larger than 250 mm diam.

9.12.3.4. All wood scraps and forms shall be removed from around the foundations before backfilling and from under exterior steps or porches before construction is completed.

9.12.3.5. Where the height of foundation wall is such that lateral support is required, or where the required concrete strength of the wall has not been reached, the wall shall be braced or laterally supported before backfilling.

SUBSECTION 9.12.4. TRENCHES BENEATH FOOTINGS

**Trenches
beneath footings**

9.12.4.1. The soil in trenches beneath footings for sewers and watermain shall be compacted by tamping up to the level of the footing base, or shall be filled with concrete having a strength not less than 10 MPa to support the footing.

SECTION 9.13 WATERPROOFING AND DAMPPROOFING

SUBSECTION 9.13.1. GENERAL

Waterproofing of walls

9.13.1.1. Where hydrostatic pressure occurs, floors on ground and exterior surfaces of walls below ground level shall be waterproofed.

Dampproofing of walls

9.13.1.2. Where hydrostatic pressure does not occur and the exterior finished ground level is at a higher elevation than the ground level inside the foundation walls, exterior surfaces of foundation walls below ground level shall be dampproofed.

9.13.1.3. RESERVED.

Underground structures

9.13.1.4. Roofs of underground structures shall be waterproofed to prevent the entry of water into the structure.

Method of application

9.13.1.5. The method of application of all bituminous waterproofing and dampproofing materials shall conform to one of the following:

- CGSB 37-GP-3M, "Application of Emulsified Asphalts for Dampproofing or Waterproofing,"
- CGSB 37-GP- 12Ma, "Application of Unfilled Cutback Asphalt for Dampproofing," or
- CGSB 37-GP-22M, "Application of Unfilled Cutback Tar Foundation Coating for Dampproofing"

SUBSECTION 9.13.2. MATERIAL

Dampproofing and waterproofing material specifications

9.13.2.1. Bituminous materials used for dampproofing or waterproofing shall conform to one of the following:

- CGSB 37-GP-2M, "Asphalt, Emulsified, Mineral Colloid Type, Unfilled, for Dampproofing and Waterproofing and for Roof Coatings,"
- CGSB 37-GP-6Ma, "Asphalt, Cutback, Unfilled, for Dampproofing,"
- CGSB 37-GP- 16M, "Asphalt, Cutback, Filled, for Dampproofing and Waterproofing,"
- CGSB 37-GP-18Ma, "Tar, Cutback, Unfilled, for Dampproofing," or
- CSA A123.4, "Bitumen for Use in Construction of Built-Up Roof Coverings and Dampproofing and Waterproofing Systems,"

SUBSECTION 9.13.3. WATERPROOFING OF WALLS

Parging

9.13.3.1.(1) Unit masonry walls to be waterproofed shall be parged on exterior surfaces below ground

level with not less than 6 mm of mortar conforming to Section 9.20 and such parging shall be coved over the footing.

(2) Concrete walls shall have all holes and recesses resulting from removal of form ties sealed with mortar or waterproofing material.

Waterproofing
membranes
for walls

9.13.3.2. Concrete or unit masonry walls to be waterproofed shall be covered with not less than 2 layers of bitumen-saturated membrane, with each layer being cemented in place with bitumen and coated over-all with a heavy coating of bitumen.

SUBSECTION 9.13.4. WATERPROOFING OF FLOORS

9.13.4.1. Basement floors to be waterproofed shall have a system of membrane waterproofing provided between 2 layers of concrete each of which shall be not less than 75 mm thick. The floor membrane shall be mopped to the wall membrane to form a complete seal.

SUBSECTION 9.13.5. DAMPPROOFING OF WALLS

Parging

9.13.5.1. Unit masonry walls to be dampproofed shall be parged on the exterior face below ground level with not less than 6 mm of mortar conforming to Section 9.20, and shall be coved over the footing when the first course of block is laid. Concrete walls shall have holes and recesses resulting from the removal of form ties sealed with cement mortar or dampproofing material.

Bituminous
coating

9.13.5.2. A heavy coat of bituminous or other dampproofing material shall be applied over the parging or concrete below ground level.

Interior
dampproofing
of walls

9.13.5.3.(1) Where a separate interior cladding is applied to a concrete or unit masonry wall which is in contact with the soil, or where wood members are applied to such walls for the installation of insulation or finish, the interior surface of the foundation wall below ground level shall be dampproofed.

(2) The dampproofing shall extend from the basement floor and shall terminate at ground level. No membrane shall be applied above ground level between the insulation and the foundation wall. Dampproofing shall consist of at least 0.05 mm polyethylene or No. 15 asphalt-saturated felt or paper lapped 100 mm at the joints.

9.13.5.4. Preserved wood foundation walls shall be dampproofed as described in CAN3-S406 "Construction of Preserved Wood Foundations".

SUBSECTION 9.13.6. DAMPPROOFING OF SLABS

Dampproofing
of slabs

9.13.6.1. When slabs are dampproofed, the dampproofing shall be installed below the slab, except that where a separate floor is provided over the slab, the dampproofing may be applied to the top of the slab.

Dampproofing
membranes

9.13.6.2. When installed below the slab, dampproofing shall consist of at least 0.15 mm polyethylene or Type S roll roofing. Dampproofing shall be lapped not less than 100 mm at the joints.

Dampproof
coatings

9.13.6.3. When installed above the slab, dampproofing shall consist of at least 2 mopped-on coats of bitumen, 0.05 mm polyethylene or other material providing equivalent performance.

SECTION 9.14 DRAINAGE

SUBSECTION 9.14.1. SCOPE

Drainage

9.14.1.1. This Section applies to subsurface drainage and to surface drainage.

Drainage of
crawl space

9.14.1.2. Drainage for crawl spaces shall conform to Section 9.18.

Floor slabs

9.14.1.3. Drainage requirements beneath floor slabs shall conform to Section 9.16.

SUBSECTION 9.14.2. GENERAL

9.14.2.1.(1) Unless it can be shown to be unnecessary, drainage shall be provided at the bottom of every foundation wall that contains the building interior.

(2) Where drainage is required in Sentence (1), the drainage shall conform to Subsection 9.14.3. or 9.14.4.

SUBSECTION 9.14.3. DRAINAGE TILE AND PIPE

Drainage
material
specifications

9.14.3.1. Drain tile and drain pipe for foundation drainage shall conform to one of the following:

CAN3-G401, "Corrugated Steel Pipe Products,"
ASTM C4, "Clay Drain Tile,"
ASTM C700, "Vitrified Clay Pipe, Extra Strength,
Standard Strength and Perforated,"

ASTM C412, "Concrete Drain Tile,"
ASTM C444, "Perforated Concrete Pipe,"
CGSB 34-GP-22M, "Pipe, Asbestos Cement, Drain,"
CGSB 41-GP-29Ma, "Tubing, Plastic, Corrugated,
Drainage," or
CSA B-182.1, "Plastic Drain and Sewer Pipe and
Pipe Fittings".

9.14.3.2. Drain tile or pipe used for foundation drainage shall have at least a 100 mm diam.

9.14.3.3. Drain tile or pipe shall be laid on undisturbed or well-compacted soil so that the top of the tile or pipe is below the bottom of the floor slab or crawl space, and where the floor slab does not rest upon the footings, the drain tile or pipe shall be laid around the outside edge of the footings.

Tile joints

9.14.3.4. Drain tile or pipe with butt joints shall be laid with 6 mm to 10 mm open joints. The top half of such joints shall be covered with sheathing paper, 0.10 mm polyethylene or No. 15 asphalt or tar-saturated felt.

Granular cover

9.14.3.5. The top and sides of drain pipe or tile shall be covered with not less than 150 mm of crushed stone or other coarse clean granular material containing not more than 10 per cent of material that will pass a 4 mm sieve.

SUBSECTION 9.14.4. GRANULAR DRAINAGE LAYER

9.14.4.1. Granular material used to drain the bottom of a foundation shall consist of a continuous layer of crushed stone or other coarse clean granular material containing not more than 10 per cent of material that will pass a 4 mm sieve.

9.14.4.2. Granular material in Article 9.14.4.1. shall be laid on undisturbed or compacted soil to a minimum depth of at least 125 mm beneath the building and extend at least 300 mm beyond the outside edge of the footings.

9.14.4.3. The bottom of an excavation drained by a granular layer shall be graded so that the entire area described in Article 9.14.4.2. is drained to a sump conforming to Article 9.14.5.2.

9.14.4.4. Where because of wet site conditions soil becomes mixed with the granular drainage material, sufficient additional granular material shall be provided so that the top 125 mm is kept free of soil.

SUBSECTION 9.14.5. DRAINAGE DISPOSAL

9.14.5.1. Foundation drains shall drain to a sewer, drainage ditch or dry well.

Sump pits

9.14.5.2. Where gravity drainage is not practical, a covered sump with an automatic pump shall be installed to discharge the water into a sewer, drainage ditch or dry well.

Dry wells

9.14.5.3. Dry wells may be used only when located in areas where the natural groundwater level is below the bottom of the dry well. Dry wells shall be not less than 5 m from the building foundation and located so that drainage is away from the building.

SUBSECTION 9.14.6. SURFACE DRAINAGE

Surface drainage

9.14.6.1. The building shall be located and the building site graded so that water will not accumulate at or near the building and will not adversely affect adjacent properties.

9.14.6.2. Surface drainage shall be directed away from the location of a water supply well or septic tank disposal bed.

Interference
with surface
drainage

9.14.6.3. Where runoff water from a driveway is likely to accumulate or enter a garage, a catch basin shall be installed to provide adequate drainage.

Downspouts

9.14.6.4. Where downspouts are provided and are not connected to a sewer, provisions shall be made to prevent soil erosion.

SECTION 9.15 FOOTINGS AND FOUNDATIONS

SUBSECTION 9.15.1. SCOPE

Scope

9.15.1.1. Except as provided in Articles 9.15.1.3. and 9.15.1.4., this Section applies to poured-in-place concrete or unit masonry foundation walls and poured-in-place concrete footings on soils with an allowable bearing pressure of 75 kPa or greater for buildings of wood frame or masonry construction.

9.15.1.2.(1) Except as provided in Sentence (2) and (3), foundations for applications other than as described in Article 9.15.1.1. shall be designed in accordance with Section 9.4.

(2) Where a foundation is erected on filled ground, peat or sensitive clay, the footing sizes shall be designed in conformance with Section 4.2.

(3) For the purpose of Sentence (2), sensitive clay means the grain size of the majority of the particles is smaller than 0.002 mm, including leda clay.

Foundations on
permafrost

9.15.1.3. Buildings erected on permafrost shall have foundations designed by a designer competent in this field in accordance with the appropriate requirements of Part 4.

Preserved wood
foundations

9.15.1.4. Foundations of wood frame construction are permitted to be used provided they conform to Article 9.15.1.5. or 9.15.1.6.

9.15.1.5. Except as provided in Article 9.15.1.6., wood frame foundations shall be designed in conformance with Part 4.

9.15.1.6. Wood frame foundations need not conform to Article 9.15.1.5. provided such foundations, including their lateral supports, conform to CAN3-S406, "Construction of Preserved Wood Foundations". The foundation shall be supported on soil having an allowable bearing pressure of at least 75 kPa and shall not be subjected to loads that exceed those determined from the design assumptions listed in Clause 1.1.2. of the Standard.

SUBSECTION 9.15.2. GENERAL

Concrete

9.15.2.1. Concrete shall conform to Section 9.3.

Concrete block

9.15.2.2. Concrete block shall be loadbearing type conforming to CAN3-A165.1, "Concrete Masonry Units" and shall have a compressive strength over the gross area of the block of at least 7.5 MPa for hollow units and 12.5 MPa for solid units.

9.15.2.3. Mortar, mortar joints, corbelling and protection for unit masonry shall conform to Section 9.20.

9.15.2.4. Where pier type foundations are used, the piers shall be designed to support the applied loads from the superstructure.

9.15.2.5. Where piers are used as a foundation system in a building of 1 storey in building height, the piers shall be installed to support the principal framing members and shall be spaced not more than 3.5 m apart along the framing, unless the piers and their footings are designed for larger spacings. The height of such piers shall not exceed 3 times their least dimension at the base of the pier. Where concrete block piers are used, they shall be laid with cores

placed vertically, and when the width of the building is 4.3 m or less, placed with their longest dimension at right angles to the longest dimension of the building.

SUBSECTION 9.15.3. FOOTINGS

Where required

9.15.3.1. Footings shall be provided under walls, pilasters, columns, piers, fireplaces and chimneys that bear on soil or rock, except that footings may be omitted under piers or monolithic concrete walls if the safe loadbearing capacity of the soil or rock is not exceeded.

9.15.3.2. Footings shall rest on undisturbed soil, rock or compacted granular fill.

Size of footings

9.15.3.3. Except as provided in Articles 9.15.3.4. to 9.15.3.7., the minimum footing size shall be as shown in Table 9.15.3.A provided the length of supported joists does not exceed 4.9 m and the design live load on any floor supported by the footing does not exceed 2.4 kPa. Where the design live load exceeds 2.4 kPa or the length of the supported joists exceeds 4.9 m, footings shall be designed in accordance with Section 4.2.

Table 9.15.3.A.
Forming part of Articles 9.15.3.3. to 9.15.3.7.

MINIMUM FOOTING SIZES			
No. of Floors Supported	Minimum Width of Strip Footings mm		Minimum Footing Area for Columns Spaced 3 m o.c., (1) m ²
	Supporting Exterior Walls	Supporting Interior Walls	
1	250(2)	200(3)	0.4
2	350(2)	350(3)	0.75
3	450(2)	500(3)	1.0
Column 1	2	3	4

Notes to Table 9.15.3.A.:

- (1) See Article 9.15.3.7.
- (2) See Articles 9.15.3.4. and 9.15.3.5.
- (3) See Article 9.15.3.6.

9.15.3.4. The strip footing sizes for exterior walls shown in Column 2 of Table 9.15.3.A. shall be increased by 65 mm for each storey of masonry veneer over wood frame construction supported by the foundation wall.

9.15.3.5. The strip footing sizes for exterior walls shown in Column 2 of Table 9.15.3.A. shall be increased by 130 mm for each storey of masonry construction supported by the foundation wall.

9.15.3.6. The minimum strip footing sizes for interior walls shown in Column 3 of Table 9.15.3.A. shall be increased by 100 mm for each storey of masonry construction supported by the footing.

9.15.3.7. The footing area for column spacings other than shown in Table 9.15.3.A. shall be adjusted in proportion to the distance between columns.

9.15.3.8. Where a foundation rests on gravel, sand or silt in which the water table level is less than the width of the footings below the bearing surface, the footing width shall be not less than twice the width required by Article 9.15.3.3.

9.15.3.9. Footings for interior non-loadbearing masonry walls shall be at least 200 mm wide for walls up to 5.5 m high and shall be increased by 100 mm for each additional 2.7 m of height.

9.15.3.10. Footings shall be at least 100 mm in thickness except when greater thicknesses are required because of the projection of the footing beyond the supported element.

9.15.3.11. The projection of an unreinforced footing beyond the supported element shall be not greater than the thickness of the footing.

9.15.3.12. When step footings are constructed, the vertical rise between horizontal portions shall not exceed 600 mm for firm soils and 400 mm for sand or gravel. The horizontal distance between risers shall not be less than 600 mm.

SUBSECTION 9.15.4. FOUNDATION WALLS

9.15.4.1. Where average stable soils are encountered, the thickness of foundation walls subject to lateral earth pressure shall conform to Table 9.15.4.A. for walls not exceeding 2.5 m in unsupported height.

9.15.4.2. For the purposes of Article 9.15.4.1., foundation walls shall be considered laterally supported at the top if such walls support solid masonry superstructure or if the floor joists are embedded in the top of the foundation walls. Foundation walls shall also be considered to be supported at the top if the floor system is anchored

Footing
projection

Step footing

Foundation wall
thickness

Laterally
supported
foundation walls

Table 9.15.4.A.
Forming Part of Article 9.15.4.1.

THICKNESS OF FOUNDATION WALLS			
<u>Type of Foundation</u>	Minimum Wall Thickness, mm	Maximum Height of Finish Grade Above Basement Floor or Inside Grade	
		<u>Foundation Wall Laterally Unsupported At the Top,(1) m</u>	<u>Foundation Wall Laterally Supported At the Top,(1) m</u>
Solid concrete (15 MPa min. strength)	150	0.8	1.5
	200	1.2	2.1
	250	1.4	2.3
	300	1.5	2.3
Solid concrete (20 MPa min) strength)	150	0.8	1.8
	200	1.2	2.3
	250	1.4	2.3
	300	1.5	2.3
Unit masonry	140	0.6	0.8
	190	0.9	1.2
	240	1.2	1.8
	290	1.4	2.2
Column 1	2	3	4

Note to Table 9.15.4.A.:

(1) See Article 9.15.4.2.

to the top of the foundation walls with anchor bolts, in which case the joists may run either parallel or perpendicular to the foundation wall. When a foundation wall contains an opening more than 1.2 m in length or contains openings in more than 25 per cent of its length, that portion of the wall beneath such openings shall be considered laterally unsupported, unless the wall around the opening is reinforced to withstand the earth pressure. When the length of solid wall between windows is less than the average length of the windows, the combined length of such windows shall be considered as a single opening.

Height above grade

9.15.4.3. Exterior foundation walls shall extend not less than 150 mm above finished ground level.

Reduction in thickness

9.15.4.4. Where the top of a foundation wall is reduced in thickness to permit the installation of

floor joists, the reduced section shall be not higher than 350 mm and not less than 90 mm thick.

9.15.4.5. Where the top of a foundation wall is reduced in thickness to permit the installation of a masonry exterior facing, the reduced section shall be not less than 90 mm thick and tied to the facing material with metal ties conforming to Article 9.20.9.5. spaced not more than 200 mm o.c. vertically and 900 mm o.c. horizontally. The space between wall and facing shall be filled with mortar.

Corbelling

9.15.4.6. Corbelling of foundation walls supporting cavity walls shall conform to Article 9.20.12.2.

Crack control joints

9.15.4.7. Crack control joints shall be provided in foundation walls exceeding 25 m in length at intervals of not more than 15 m. Such joints shall be designed to resist moisture penetration and shall be keyed to prevent relative displacement of the wall portions adjacent to the joint.

Walls not subject to earth pressure

9.15.4.8. Interior masonry foundation walls not subject to lateral earth pressure shall conform to Section 9.20.

SUBSECTION 9.15.5. JOIST AND BEAM SUPPORT

Capping of walls

9.15.5.1. Foundation walls of hollow unit masonry supporting floor joists shall be capped with at least 50 mm of solid masonry or concrete, or have the top course filled with mortar or concrete, except that such capping may be omitted in localities where termites are not known to occur when the joists are supported on a wood plate not less than 38 mm by 89 mm where the siding overlaps the foundation wall not less than 12 mm.

Beam support

9.15.5.2. Not less than a 190 mm depth of solid masonry shall be provided beneath beams supported on masonry. Where the beam is supported below the top of the foundation walls, the ends of such beams shall be protected from the weather.

Pilasters

9.15.5.3. Pilasters shall be provided under beams that frame into 140 mm unit masonry foundation walls. Pilasters shall be not less than 90 mm by 290 mm and shall be bonded or tied into the wall. The top 200 mm of pilasters shall be solid.

SUBSECTION 9.15.6. PARING AND FINISHING

Parging and finishing

9.15.6.1. Concrete block foundation walls shall be parged on the exterior face below ground level as required in Section 9.13.

Removal of
form ties

9.15.6.2. All form ties shall be removed at least flush with the concrete surface.

Exterior finish
of block
foundation

9.15.6.3. Exterior surfaces of concrete block foundation walls above ground level shall have tooled joints, or shall be rendered, parged or otherwise suitably finished.

SECTION 9.16 SLABS-ON-GROUND

SUBSECTION 9.16.1. SCOPE

9.16.1.1. This Section applies to concrete slabs supported on ground or on granular fill which do not provide structural support for the superstructure.

Design of
structural slabs

9.16.1.2. Floor slabs that support loads from the superstructure shall be designed in conformance with Part 4.

9.16.1.3. Dampproofing and waterproofing shall conform to Section 9.13.

SUBSECTION 9.16.2. SLAB SUPPORTS

Granular fill

9.16.2.1. When fill is used beneath slabs, the top portion of this fill shall consist of not less than 125 mm of coarse clean granular material containing not more than 15 per cent by weight of material which can pass through a 2 mm sieve.

SUBSECTION 9.16.3. DRAINAGE

9.16.3.1. Except as provided in Article 9.16.3.2. or where it can be shown to be unnecessary, the accumulation of water underneath a slab-on-ground shall be prevented by grading or drainage.

Uplift pressures

9.16.3.2. Where ground water levels may cause hydrostatic pressure beneath the slab, the slab shall be designed to resist such pressures.

Floor drains

9.16.3.3. When floor drains are installed (see Section 9.32), the floor surface shall be sloped so that no water can accumulate.

SUBSECTION 9.16.4. CONCRETE

Surface finish

9.16.4.1. The finished surface of concrete floor slabs shall be trowelled smooth and even. Dry cement shall not be added to the floor surfaces to absorb surplus water.

9.16.4.2.(1) Where dampproofing is not provided the concrete used for slabs-on-ground shall have a minimum compressive strength of 25 MPa after 28 days.

(2) Where dampproofing is provided as described in Subsection 9.13.6., the concrete used for the slabs-on-ground shall have a minimum compressive strength of 15 MPa after 28 days.

Thickness

9.16.4.3. Concrete slabs shall not be less than 75 mm thick exclusive of concrete topping. When concrete topping is provided, it shall not be less than 20 mm thick.

SUBSECTION 9.16.5. JOINTS

Termite protection

9.16.5.1. In localities where termites are known to occur, joints between slabs-on-ground and foundation walls, and spaces around pipes, conduit or ducts that penetrate such slabs shall be filled with bitumen.

SECTION 9.17 COLUMNS

SUBSECTION 9.17.1. SCOPE

Scope

9.17.1.1. This Section applies to columns used to support carport roofs and beams carrying loads from not more than 2 wood-frame floors where the length of joists carried by such beams does not exceed 5 m and the live load on any floor does not exceed 2.4 kPa.

9.17.1.2. Columns for applications other than as described in Article 9.17.1.1. shall be designed in accordance with Part 4.

SUBSECTION 9.17.2. GENERAL

Column support

9.17.2.1. Columns shall be centrally located on a footing conforming to Section 9.15.

9.17.2.2. Columns shall be securely fastened to foundations and to the the supported member to prevent lateral movement.

SUBSECTION 9.17.3. STEEL COLUMNS

Size

9.17.3.1. Except as permitted in Article 9.17.3.2., steel pipe columns shall have a minimum outside diameter of 73 mm and a minimum wall thickness of 4.76 mm.

Exception

9.17.3.2. Columns of sizes other than as specified in Article 9.17.3.1. may be used where the loadbearing capacities are shown to be adequate.

Bearing plates

9.17.3.3. Except as permitted in Article 9.17.3.4., steel columns shall be fitted with not less than 100 mm by 100 mm by 6.35 mm thick steel plates at each

end, and where the column supports a wooden beam, the top plate shall extend across the full width of the beam.

Exception **9.17.3.4.** The top plate required in Article 9.17.3.3. may be omitted where a column supports a steel beam and provision is made for the attachment of the column to the beam.

Rust protection **9.17.3.5.** Steel columns shall be treated on the outside surface with at least 1 coat of rust-inhibitive paint.

9.17.3.6. Adjustable steel columns shall conform to CGSB 115-GP-1, "Columns, Adjustable, Metal."

SUBSECTION 9.17.4. WOOD COLUMNS

Size **9.17.4.1.** The width or diameter of a wood column shall be not less than the width of the supported member. Except as provided in Article 9.36.4.2., columns shall be not less than 184 mm for round columns and 140 mm by 140 mm for rectangular columns, unless calculations are provided to show that lesser sizes are adequate.

Construction **9.17.4.2.** Wood columns shall be either solid, glued-laminated or built-up. Built-up columns shall consist of not less than 38 mm thick full-length members bolted together with not less than 9.52 mm diam bolts spaced not more than 450 mm o.c., or nailed together with not less than 76 mm nails spaced not more than 300 mm o.c. Glued-laminated columns shall conform to Section 4.3.

Dampproofing **9.17.4.3.** Wood columns shall be separated from concrete in contact with the ground by 0.05 mm polyethylene film or Type S roll roofing.

9.17.4.4.(1) Where termites are known to exist, exterior wood columns such as porch supports shall be,

(a) pressure treated with a chemical that is toxic to such termites, in accordance with Article 9.3.2.9; or

(b) supported on non-cellulosic material extending at least 150 mm above grade and located at least 50 mm from the exterior wall of an adjacent building.

SUBSECTION 9.17.5. UNIT MASONRY COLUMNS

Material **9.17.5.1.** Unit masonry columns shall be built of loadbearing masonry units.

Size	9.17.5.2. Unit masonry columns shall be at least 290 mm by 290 mm or 240 mm by 380 mm in size.
SUBSECTION 9.17.6. SOLID CONCRETE COLUMNS	
Material	9.17.6.1. Concrete shall conform to Section 9.3.
Size	9.17.6.2. Concrete columns shall be not less than 200 mm by 200 mm for rectangular columns and 230 mm diam for circular columns.
SECTION 9.18 CRAWL SPACES	
SUBSECTION 9.18.1. GENERAL	
Crawl spaces	9.18.1.1. In this Section a crawl space refers to an enclosed space between the underside of a floor assembly and the ground cover directly below, with a clearance less than 1.8 m in height.
Foundations	9.18.1.2. <u>Foundations</u> enclosing crawl spaces shall conform to Section 9.15.
Insulation	9.18.1.3. Insulation shall conform to Section 9.26.
Heating	9.18.1.4. Heating of crawl spaces shall conform to Section 9.34.
SUBSECTION 9.18.2. ACCESS	
Size	9.18.2.1. An access opening of not less than 500 mm by 700 mm shall be provided to each crawl space where the crawl space serves a single <u>dwelling unit</u> , and not less than 550 mm by 900 mm for other crawl spaces.
Access hatch	9.18.2.2. Access openings shall be fitted with a door or hatch, except when the access opening into the crawl space is from the adjacent basement and provides ventilation to the crawl space.
SUBSECTION 9.18.3. VENTILATION	
	9.18.3.1. Crawl spaces shall be ventilated by natural or mechanical means.
Size of vents	9.18.3.2. Except as otherwise permitted in Article 9.18.3.5., natural ventilation for crawl spaces shall be provided to the outside air by not less than 0.1 m ² of unobstructed vent area for every 50 m ² of floor area.
Design of vents	9.18.3.3. Vents for crawl spaces shall be designed to prevent the entry of snow, rain and insects, and

shall be provided with tight-fitting covers to prevent air leakage in winter if the crawl space is heated.

Distribution of vents

9.18.3.4. Vents for crawl spaces shall be uniformly distributed on opposite sides of the building.

Ventilation not required

9.18.3.5. Ventilation to the outside air is not required when the crawl space is used as a warm-air plenum, or if the crawl space is vented to an adjacent basement or cellar with an opening conforming to Article 9.18.3.2.

SUBSECTION 9.18.4. CLEARANCE

Clearance in crawl space

9.18.4.1. The ground level in a crawl space shall be not less than 300 mm below the level of all joists and beams, except that in localities where termites are known to occur, the clearance shall be not less than 450 mm, unless the joists are pressure treated with a chemical that is toxic to termites.

Service clearance

9.18.4.2. Where equipment requiring service such as plumbing cleanouts, traps and burners is located in crawl spaces, an access way with a minimum height and width of 600 mm shall be provided from the access door to the equipment and for a distance of 900 mm on the side or sides of the equipment to be serviced.

SUBSECTION 9.18.5. DRAINAGE

Drainage

9.18.5.1. Unless groundwater levels and site conditions are such that water will not accumulate in the crawl space, the crawl space floor and access trenches shall be sloped to drain to a sewer, ditch or dry well.

9.18.5.2. Drains shall conform to Section 9.14.

SUBSECTION 9.18.6. GROUND COVER

Ground cover

9.18.6.1. A ground cover consisting of not less than 50 mm of asphalt or 10 MPa portland cement concrete, or Type S roll roofing or 0. 10 mm polyethylene shall be provided in every crawl space. Joints in sheet-type ground cover shall be lapped not less than 100 mm and weighted down.

SUBSECTION 9.18.7. FIRE PROTECTION

Fire protection

9.18.7.1. Crawl spaces used as warm-air plenums in buildings of residential occupancy shall be restricted to 1-storey portions of dwelling units. Enclosing material including insulation shall have a surface flame-spread rating not greater than 150.

Combustible ground cover shall be covered with noncombustible material or have noncombustible receptacles beneath the register openings.

SECTION 9.19 ROOF SPACES

SUBSECTION 9.19.1. VENTILATION

Area

9.19.1.1.(1) Except as provided in Articles 9.19.1.2. and 9.19.1.5., every roof space or attic above an insulated ceiling shall be ventilated with openings to the exterior to provide unobstructed vent area of not less than 1/300 of the insulated ceiling area.

(2) Vents may be roof type, eave type, gable-end type or any combination thereof, and shall be uniformly distributed on opposite sides of the building.

(3) Vents shall be designed to prevent the entry of rain, snow and insects.

(4) The unobstructed vent area shall be determined in conformance with CAN3-A93, "Natural Airflow Ventilators for Buildings."

9.19.1.2.(1) A roof space in a manufactured building described in Part 2, need not be vented provided the vapour barrier protecting the ceiling insulation is Type 1, and except where two such buildings are coupled together on site to form a single building, such vapour barrier is applied as a single continuous sheet without openings over the entire ceiling area.

(2) Openings such as for plumbing vents may be cut in such vapour barrier provided the perimeters of such openings are sealed in a manner that will maintain the effectiveness of the vapour barrier.

9.19.1.3. Except as provided in Article 9.19.1.4., cross purlins at least 38 mm by 38 mm shall be applied to the top of the roof joists where the roof does not incorporate an attic space, and the top of the insulation shall be at least 25 mm below the top of the roof joists.

9.19.1.4. Cross purlins required by Article 9.19.1.3. may be omitted where the roof slope is 1 in 6 or steeper provided the roof framing members run in the same direction as the roof slope and a minimum clearance of 75 mm is maintained between the underside of the roof sheathing and the top of the insulation throughout the length of the roof joist.

9.19.1.5. Where insulation is placed below the roof sheathing in roofs having a slope of less than 1 in 6 or in roofs that are constructed with roof joists, the unobstructed vent area shall be not less than 1/150 of the insulated ceiling area.

9.19.1.6. Vents in all roof spaces shall be distributed so that approximately 50 per cent of the required vent area is located near the lower part of the roof and approximately 50 per cent of the required vent area is near the ridge.

9.19.1.7. Ceiling insulation shall be installed in a manner which will not restrict a free flow of air through roof vents or through any portion of the roof space or attic.

9.19.1.8. The lower portion of a mansard or gambrel style roof need not be ventilated. The upper portion of such roofs shall be ventilated in conformance with the requirements in Articles 9.19.1.1. to 9.19.1.7., except that at least 50 per cent of the required vent opening shall be provided near the junction of the upper and lower portions.

SUBSECTION 9.19.2. ACCESS

Access to attics

9.19.2.1. Every attic space more than 600 mm in height at the highest point shall be provided with an access stair or shall have a hatchway of not less than 550 mm by 900 mm, except that where such hatchway serves not more than 1 dwelling unit, the hatchway may be reduced to 500 mm by 700 mm. Hatchways shall be fitted with doors or covers.

SECTION 9.20 ABOVE-GRADE MASONRY

SUBSECTION 9.20.1. SCOPE

9.20.1.1. This Section applies to unreinforced masonry and masonry veneer in which the wall height above the foundation wall does not exceed 11 m, and in which the roof or floor system above the first storey is not of concrete construction.

9.20.1.2. For buildings other than described in Article 9.20.1.1., or where the masonry is designed on the basis of design loads and allowable stresses, Subsection 4.3.2. shall apply.

9.20.1.3. In velocity-related seismic zones, Z_v , of 4 or greater, loadbearing elements of masonry buildings more than 1 storey in height shall be reinforced with at least the minimum amount of reinforcement as required in Subsection 9.20.17.

9.20.1.4. In velocity-related seismic zones, Z_v , of 2 and 3, loadbearing elements of 3 storey masonry buildings shall be reinforced with at least the minimum amount of reinforcement as required in Subsection 9.20.17.

SUBSECTION 9.20.2. MASONRY UNITS

Material
specifications
for masonry
units

9.20.2.1. Masonry units shall comply with one of the following:

- CSA A82.1, "Burned Clay Brick,"
- CSA A82.3, "Calcium Silicate (Sand-Lime) Building Brick,"
- CSA A82.4, "Structural Clay Load-Bearing Wall Tile,"
- CSA A82.5, "Structural Clay Non-Load-Bearing Tile,"
- CAN3-A165.1, "Concrete Masonry Units,"
- CAN3-A165.2, "Concrete Brick Masonry Units,"
- CAN3-A165.3, "Prefaced Concrete Masonry Units,"
- CAN3-A165.4, "Autoclaved Cellular Units,"
- ASTM C126, "Ceramic Glazed Structural Clay Facing Tile, Facing Brick, and Solid Masonry Units," or
- ASTM C212, "Structural Clay Facing Tile."

Used masonry

9.20.2.2. Used bricks shall be free of old mortar, soot or other surface coating and shall conform to Article 9.20.2.1.

Limitation on
use of glass
block, gypsum
and foamed
concrete

9.20.2.3. Glass blocks and gypsum masonry shall not be used as loadbearing units or in the construction of fireplaces or chimneys. Gypsum block shall not be exposed to soil, weather or dampness. Masonry made with foamed concrete shall not be used in contact with the soil or exposed to the weather.

Stone

9.20.2.4. Stone shall be sound and durable.

9.20.2.5. Loadbearing concrete units or non-loadbearing concrete units exposed to the weather shall have weight and water absorption characteristics conforming to Classes A, B or C, described in CAN3-A165. 1, "Concrete Masonry Units." Where cellular concrete blocks are used, allowance shall be made in the design for the shrinkage characteristics of the units to be used.

9.20.2.6. Clay brick masonry units exposed to the weather shall have an average saturation coefficient not greater than 0.88 when measured in conformance with CAN3-A82.2, "Methods of Sampling and Testing Brick."

9.20.2.7. The compressive strength of masonry units shall conform to Table 9.20.2.A.

Table 9.20.2.A.
Forming Part of Article 9.20.2.7.

COMPRESSIVE STRENGTH OF MASONRY		
Type of Masonry Unit	Minimum Compressive Strength over Gross Area, MPa	
	Masonry Unit Exposed to Weather	Masonry Unit not Exposed to Weather
Hollow <u>loadbearing</u> concrete units	7	5
Solid <u>loadbearing</u> concrete units	12.5	8
Hollow non- <u>loadbearing</u> concrete units	7	2.5
Solid non- <u>loadbearing</u> concrete units	12.5	8
Solid <u>loadbearing</u> cellular units	Not permitted	5
Solid non- <u>loadbearing</u> cellular units	Not permitted	2
Column 1	2	3

SUBSECTION 9.20.3. MORTAR

Materials
specifications
for mortar

9.20.3.1. Cementitious materials and aggregates for mortar shall comply with the following:

CAN3-A5, "Portland Cements,"
CAN3-A8, "Masonry Cement,"
CSA A82.22, "Gypsum Plasters,"
CSA A82.56, "Aggregate for Masonry Mortar."

Water and
aggregate

9.20.3.2. Water and aggregate shall be clean and free of significant amounts of deleterious materials.

Lime

9.20.3.3. Lime used in mortar shall be hydrated.

Lime putty

9.20.3.4. If lime putty is used in mortar, it shall be made by slaking quicklime in water for not less than 24 h or soaking hydrated lime in water for not less than 12 h.

Mortar mixes

9.20.3.5. Except as provided in Articles 9.20.3.6. to 9.20.3.8., mortar mixes shall conform to Table

9.20.3.A. Mortar containing portland cement shall not be used later than 2 1/2 h after mixing.

9.20.3.6. Mortar for sand-lime brick and concrete brick shall consist of 1 part masonry cement to not less than 3 parts of aggregate by volume in addition to those mixes permitted in Table 9.20.3.A.

Table 9.20.3.A.
Forming Part of Articles 9.20.3.5. and 9.20.3.6.

MORTAR MIX PROPORTIONS (by volume)				
Permissible Use of Mortar	Portland Cement	Masonry Cement (Type H)	Lime	Aggregate
All locations but not for use with sand-lime or concrete brick	1/2 to 1 1	1 —	— 1/4 to 1/2	
All locations except <u>foundation</u> walls and piers, but not for use with sand-lime or concrete brick	— 1	1 —	— 1/2 to 1/4	
All locations except <u>loadbearing</u> walls of hollow units, parapet walls and <u>chimneys</u>	1	—	1 1/4 to 2 1/2	Not less 2 1/4 and not more than 3 times the sum of the volumes of the cement and lime
All non- <u>loadbearing</u> interior walls and all <u>loadbearing</u> walls of solid units, except <u>foundation</u> walls, parapet walls and <u>chimneys</u>	1 —	— —	2 1/4 to 4 1	
Column 1	2	3	4	5

Mortar for
gypsum units

9.20.3.7. Mortar for gypsum units shall consist of 1 part gypsum and not more than 3 parts aggregate by weight.

Mortar for
glass block

9.20.3.8. Mortar for glass block shall consist of 1 part portland cement, 1 part hydrated lime to not more than 4 parts aggregate by volume.

SUBSECTION 9.20.4. MORTAR JOINTS

Mortar joint thickness	9.20.4.1. Maximum average joint thickness shall be 12 mm. Maximum thickness of an individual joint shall be 20 mm.
Solid masonry joints	9.20.4.2. Solid masonry units shall be laid with full head and bed joints.
Hollow masonry joints	9.20.4.3. Hollow masonry units shall be laid with mortar applied to head and bed joints of both inner and outer face shells.

SUBSECTION 9.20.5. MASONRY SUPPORT

Masonry support	9.20.5.1. All masonry shall be supported on masonry, concrete or steel, except that masonry veneer walls may be supported on <u>foundations</u> of wood frame constructed in conformance with Articles 9.15.1.5. and 9.15.1.6.
Lintels	9.20.5.2. Masonry over openings shall be supported by steel, reinforced concrete or masonry lintels or arches designed to support the imposed load. 9.20.5.3. Steel angle lintels supporting masonry veneer above openings shall conform to Table 9.20.5.A.

Table 9.20.5.A.
Forming Part of Article 9.20.5.3.

MAXIMUM ALLOWABLE SPANS FOR STEEL LINTELS SUPPORTING MASONRY VENEER, m					
Minimum Angle Size, mm			75 mm Brick	90 mm Brick	100 mm Stone
Vert. Leg	Horiz. Leg	Thickness			
90	75	6	2.55	--	--
90	90	6	2.59	2.47	2.30
100	90	6	2.79	2.66	2.48
125	90	8	3.47	3.31	3.08
125	90	10	3.64	3.48	3.24
Column 1	2	3	4	5	6

Thickness of supporting walls	9.20.5.4. Every masonry wall shall be at least as thick as the wall it supports, except as otherwise permitted in Article 9.20.12.2.
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SUBSECTION 9.20.6. THICKNESS AND HEIGHT

Thickness of
solid exterior
walls

9.20.6.1.(1) Masonry exterior walls, other than cavity walls, in 1-storey buildings and the top storeys of 2-storey buildings shall be not less than 140 mm thick provided the walls are not more than 2.8 m high at the eaves and 4.6 m high at the peaks of gable ends.

(2) The exterior walls of the bottom storeys of 2-storey buildings and walls of 3-storey buildings shall be not less than 190 mm thick. In walls composed of more than one wythe, each wythe shall be not less than 90 mm thick.

Thickness of
cavity walls

9.20.6.2.(1) Cavity walls shall be made with not less than 90 mm wide units if the joints are raked and not less than 75 mm wide units if the joints are not raked. Wythes shall be separated by a cavity of not less than 50 mm nor more than 75 mm, except that where the wythes are bonded together with masonry units, the cavity shall be not less than 75 mm and not more than 100 mm.

(2) The minimum thickness of cavity walls above the supporting base shall be 230 mm for the top 7.6 m and 330 mm for the remaining portion, except that where 75 mm wide units are used, the wall height above the top of the foundation wall shall not exceed 6 m.

Thickness of
interior walls

9.20.6.3. The thickness of loadbearing interior walls shall be determined on the basis of Article 9.20.10.1.

9.20.6.4. Interior non-loadbearing walls shall be not less than 65 mm thick.

Masonry veneer

9.20.6.5. Masonry veneer resting on a bearing support shall be of solid units not less than 75 mm thick for wall heights up to 11 m. Such veneer over wood-frame walls shall have not less than a 25 mm air space behind the veneer. Masonry veneer less than 90 mm thick shall have unraked joints.

Individually
supported
veneer units

9.20.6.6. Masonry veneer individually supported by the back-up material shall conform to the appropriate requirements contained in Subsection 4.3.2.

Parapet walls

9.20.6.7. The height of parapet walls above the adjacent roof surface shall be not more than 3 times the parapet wall thickness. Parapet walls shall be solid from the top of the parapet to not less than 300 mm below the adjacent roof level.

Limestone slab facings

9.20.6.8. Limestone slab facings and precast concrete panel facings shall conform to the appropriate requirements of Subsection 4.3.2.

SUBSECTION 9.20.7. CHASES AND RECESSES

Size of chases and recesses

9.20.7.1. Except as permitted in Article 9.20.7.3. and 9.20.7.5., the depth of any chase or recess shall not exceed $\frac{1}{3}$ the thickness of the wall, and the horizontal projection of the chase or recess shall not exceed 500 mm.

Chases or recesses prohibited

9.20.7.2. Except as permitted in Articles 9.20.7.3. and 9.20.7.5., no chase or recess shall be constructed in any wall 190 mm or less in thickness.

9.20.7.3. Recesses may be constructed in 190 mm walls provided they do not exceed 100 mm in depth and 750 mm in height, and the horizontal projection of the recess does not exceed 500 mm.

Location of chases and recesses

9.20.7.4. Chases and recesses shall be not less than 4 times the wall thickness apart and not less than 600 mm away from any pilaster, cross wall, buttress or the vertical element providing required lateral support for the wall.

Oversized chases and recesses

9.20.7.5. Chases or recesses that do not conform to the limits specified in Articles 9.20.7.1. to 9.20.7.4. shall be considered as openings, and any masonry supported above such a chase or recess shall be supported by a lintel or arch.

9.20.7.6. Chases and recesses shall not be cut into walls made with hollow units after the masonry units are in place.

SUBSECTION 9.20.8. SUPPORT OF LOADS

Capping of walls

9.20.8.1. Loadbearing walls of hollow masonry units supporting roof or floor framing members shall be capped with not less than 50 mm of solid masonry or have the top course filled with concrete. Capping may be omitted where the roof framing is supported on a wood plate not less than 38 mm by 89 mm.

Floor joist support

9.20.8.2.(1) Floor joists supported on cavity walls shall be supported on solid units not less than 57 mm in height. Floor joists shall not project into the cavity.

(2) Roof and ceiling framing members bearing on cavity walls shall be supported on not less than 57 mm of solid masonry, bridging the full thickness of the wall, or a wood plate not less than 38 mm thick, bearing not less than 50 mm on each wythe.

Bearing area

9.20.8.3.(1) The bearing area under beams and joists shall be sufficient to carry the supported load. In no case shall the minimum length of end bearing of beams supported on masonry be less than 90 mm.

(2) The length of end bearing of floor, roof or ceiling joists supported on masonry shall be not less than 40 mm.

Pilasters

9.20.8.4.(1) Beams and columns supported on masonry walls shall be supported on pilasters where the thickness of the masonry wall or wythe is less than 190 mm.

(2) Not less than 190 mm depth of solid masonry or concrete shall be provided under the beam or column.

(3) Pilasters shall be bonded or tied to masonry walls.

(4) Concrete pilasters shall be not less than 50 mm by 300 mm; unit masonry pilasters shall be not less than 100 mm by 290 mm.

Shelf angles

9.20.8.5. The distance from the face of a wall to the edge of a supporting member attached to the structure, such as a shelf angle or the flange of a beam, shall not exceed 30 mm, except as otherwise permitted in Subsection 4.3.2.

SUBSECTION 9.20.9. BONDING AND TYING

Reinforcing

9.20.9. 1. Vertical joints in adjacent masonry courses shall be offset unless each wythe of masonry is reinforced with the equivalent of not less than 2 corrosion-resistant steel bars of 3.76 mm diam placed in the horizontal joints at vertical intervals not exceeding 460 mm. Where joints in the reinforcing occur, the bars shall be lapped not less than 150 mm.

9.20.9.2. Masonry walls that consist of 2 or more wythes shall have the wythes bonded or tied together with masonry bonding units as described in Article 9.20.9.3. or with metal ties as described in Articles 9.20.9.4. to 9.20.9.6.

9.20.9.3.(1) Where wythes are bonded together with masonry units, the bonding units shall comprise not less than 4 per cent of the wall surface area.

(2) Bonding units shall be spaced not more than 600 mm vertically and horizontally in the case of brick masonry and 900 mm o.c. in the case of block or

tile. Such units shall extend not less than 90 mm into adjacent wythes.

9.20.9.4.(1) Where 2 or more wythes are bonded together with metal ties of the individual rod type, the ties shall conform to the requirements in Articles 9.20.9.5. to 9.20.9.8.

(2) Other metal bonding ties may be used where it can be shown that such ties provide walls that are at least as strong and as durable as those made with the individual rod type.

9.20.9.5. Metal ties of the individual rod type shall be corrosion-resistant and shall have a minimum cross-sectional area of not less than 17.8 mm^2 . Such ties shall have not less than a 50 mm portion bent at right angles at each end.

9.20.9.6. Metal ties of the individual rod type shall extend from within 25 mm of the outer face of the wall to within 25 mm of the inner face of the wall and shall be completely embedded in mortar except for the portion exposed in cavity walls. Such ties shall be staggered from course to course.

9.20.9.7.(1) Where 2 or more wythes in walls other than cavity walls are bonded together with metal ties of the individual rod type, the space between wythes shall be completely filled with mortar.

(2) Such ties shall be located within 300 mm of openings and spaced not more than 900 mm apart around openings. Ties at other locations shall be spaced not more than 900 mm apart horizontally and 460 mm apart vertically.

9.20.9.8.(1) Where the inner and outer wythes of cavity walls are bonded together with metal ties of the individual rod type, the ties shall

(a) be spaced not more than 600 mm apart horizontally within 100 mm of the bottom of each floor or roof assembly where the cavity extends below the assemblies and not more than 900 mm apart around openings within 300 mm of the openings; and

(b) at other locations, the ties shall be spaced not more than 900 mm apart horizontally and 460 mm apart vertically.

Masonry veneer
reinforcing

9.20.9.9. Masonry veneer 75 mm or more in thickness and resting on a bearing support shall be tied to

masonry back-up or to wood framing members with not less than 0.41 mm thick, 22 mm wide corrosion-resistant straps spaced in accordance with Table 9.20.9.A. and shaped to provide a key with the mortar.

Table 9.20.9.A.
Forming Part of Article 9.20.9.9.

VENEER TIE SPACING	
Maximum Vertical Spacing, mm	Maximum Horizontal Spacing, mm
400	800
500	600
600	400
Column 1	2

Glass block
reinforcing

9.20.9.10. Masonry veneer individually supported by masonry or wood-frame back-up shall be secured to the back-up in conformance with Subsection 4.3.2.

9.20.9.11. Glass block shall have horizontal joint reinforcement of 2 corrosion-resistant bars of not less than 3.76 mm diam or expanded metal strips not less than 75 mm wide spaced at vertical intervals not exceeding 600 mm for units 190 mm or less in height and in every horizontal joint for units higher than 190 mm. Reinforcement shall be lapped not less than 150 mm.

Lateral support
of masonry
walls

SUBSECTION 9.20.10. LATERAL SUPPORT

9.20.10.1. Masonry walls shall be supported at right angles to the wall by floor or roof construction or by intersecting masonry walls or buttresses. The maximum spacing of such supports shall be 20 times the wall thickness for walls of solid units and 18 times the wall thickness for walls of hollow units or cavity walls, except that the spacing of supports for non-loadbearing interior walls shall be not more than 36 times the wall thickness.

9.20.10.2. Floor and roof constructions providing required lateral support for walls as required in Article 9.20.10.1. shall be constructed to transfer lateral loads to walls or buttresses approximately at right angles to the laterally supported walls.

SUBSECTION 9.20.11. ANCHORAGE OF ROOFS, FLOORS AND INTERSECTING WALLS

Anchorage of
roofs, floors and
intersecting
walls

9.20.11.1.(1) Where required to provide lateral support (see Subsection 9.20.10.), masonry walls shall be anchored to each floor or roof assembly at maximum intervals of 2 m, except that anchorage of floor joists not more than 1 m above grade may be omitted.

(2) Ties shall be corrosion-resistant and be not less than the equivalent of 40 mm by 4.76 mm thick steel straps.

(3) Such anchors shall be shaped to provide a mechanical key with the masonry and shall be securely fastened to the horizontal support to develop the full strength of the tie.

(4) When joists are parallel to the wall, such ties shall extend across at least 3 joists.

Tying of
intersecting

9.20.11.2.(1) Where required to provide lateral support, intersecting walls shall be bonded or tied together.

(2) Fifty per cent of the adjacent masonry units in the intersecting wall shall be embedded in the laterally supported wall, or corrosion-resistant metal ties equivalent to not less than 4.76 mm by 40 mm steel strapping shall be provided.

(3) Such ties shall be spaced not more than 800 mm o.c. vertically and shaped at both ends to provide sufficient mechanical key to develop the strength of the ties.

9.20.11.3. Wood-frame walls shall be tied to intersecting masonry walls with not less than 4.76 mm diam corrosion-resistant steel rods spaced not more than 900 mm o.c. vertically. The ties shall be anchored to the wood framing at one end and shaped to provide a mechanical key at the other end to develop the strength of the tie.

Tying of wood
frame roof
systems

9.20.11.4. Roof systems of wood-frame construction shall be tied to exterior walls by not less than 12.7 mm diam anchor bolts, spaced not more than 2.4 m apart, embedded not less than 90 mm into the masonry and fastened to a rafter plate of not less than 38 mm thick lumber. Alternatively the roof system may be anchored by nailing the wall furring strips to the side of the rafter plate.

Anchoring of
projecting
masonry

9.20.11.5. Cornices, sills or other trim of masonry material which project beyond the wall face shall have not less than 65 per cent of their mass, but not less than 90 mm, within the wall or shall be adequately anchored to the wall with corrosion-resistant anchors.

Bedding of
anchor bolts

9.20.11.6. Where anchor bolts are to be placed in the top of a pier, the pier shall be capped with concrete or reinforced masonry not less than 300 mm thick.

SUBSECTION 9.20.12. CORBELLING

Corbelling

9.20.12.1. All corbelling shall consist of solid units. The units shall be corbelled so that the horizontal projection of any unit does not exceed 25 mm and the total projection does not exceed $\frac{1}{3}$ the total wall thickness.

9.20.12.2. Cavity walls of greater thickness than the foundation wall on which they rest shall not be corbelled but may project 25 mm over the outer face of the foundation wall disregarding parging. The unit masonry foundation wall may be corbelled to meet flush with the inner face of a cavity wall provided the individual corbel does not exceed $\frac{1}{2}$ the height or $\frac{1}{3}$ the width of the corbelled unit and the total corbel does not exceed $\frac{1}{3}$ the foundation wall thickness.

9.20.12.3. Masonry veneer resting on a bearing support shall not project more than 25 mm beyond the supporting base where the veneer is at least 90 mm thick, and 12 mm beyond the supporting base where the veneer is less than 90 mm thick. In the case of rough stone veneer, the projection, measured as the average projection of the stone units, shall not exceed $\frac{1}{3}$ the bed width beyond the supporting base.

SUBSECTION 9.20.13. FLASHING

9.20.13.1.(1) Exposed flashing shall consist of not less than 1.73 mm sheet lead, 0.33 mm galvanized steel, 0.36 mm copper, 0.46 mm zinc or 0.48 mm thick aluminum.

(2) Aluminum flashing in contact with masonry or concrete shall be effectively coated or separated from the masonry or concrete by an impervious membrane.

9.20.13.2. Concealed flashing shall consist of not less than 1.73 mm sheet lead, 0.33 mm galvanized steel, 0.36 mm copper, 0.46 mm zinc, Type S roll

roofing, 0.15 mm polyethylene or 0.05 mm copper or aluminum laminated to felt or kraft paper.

Fastening
devices for
flashing

9.20.13.3. Fastening devices for flashing shall be corrosion-resistant and compatible with the flashing with respect to galvanic action.

Flashing in
masonry and
masonry veneer
walls

9.20.13.4. Except as required in Article 9.20.13.5., a flashing shall be installed at the top of exposed masonry, beneath masonry copings or sills at openings, over the back and top of parapet walls, over the heads of glass block panels, beneath weep holes and over the heads of wall openings in exterior walls when the vertical distance between the top of the wall opening and the bottom edge of the eave exceeds 1/4 of the horizontal eave overhang.

9.20.13.5.(1) A flashing may be deleted when the masonry at the sill of a wall opening or the top of a wall is protected by an impervious non-jointed masonry coping which conforms to Article 9.20.15.4.

(2) When installed beneath jointed sills and jointed copings or over the heads of openings, the flashing shall extend from the front edge of the masonry up behind the sill or lintel.

9.20.13.6. Flashing beneath weep holes in cavity walls shall be installed so that it is bedded in both wythes and slopes toward the outside wythe. Such flashing shall be bedded not less than 25 mm in the inside wythe and extend to the outside of the outer wythe.

9.20.13.7. Flashing beneath weep holes in masonry veneer over wood-frame walls shall be installed so that it extends from the front edge of the masonry to 150 mm up behind the sheathing paper.

9.20.13.8. The horizontal portion of any concealed pliable type flashings shall be installed upon a continuous solid bearing surface to prevent sags and water accumulation on the flashing.

SUBSECTION 9.20.14. WEEP HOLES

Weep holes

9.20.14.1. Weep holes spaced not more than 800 mm apart shall be provided at the bottom of the cavity in cavity wall and masonry veneer wall construction including the cavities above lintels over window and door openings required to be flashed in conformance with Article 9.20.13.4.

SUBSECTION 9.20.15. DAMPPROOFING

Dampproofing

9.20.15.1.(1) Where the interior finish of the exterior walls of a building is a type which may be damaged by moisture, exterior masonry walls, other than cavity walls or walls that are protected for their full height by a roof of a carport or porch, shall be

- (a) parged on the interior surface, and
- (b) covered with No. 15 breather-type asphalt-saturated paper conforming to CAN2-51.32, "Sheathing, Membrane, Breather Type", and
- (c) the paper referred to in clause (b) shall be lapped at least 100 mm at the joints.

(2) Where the insulation effectively limits the passage of water vapour and is applied by a waterproof adhesive or by mortar directly to the masonry, the requirements for sheathing paper do not apply.

Prevention of bridging in cavity walls

9.20.15.2. Cavity walls shall be constructed so that mortar droppings are prevented from forming a bridge to allow the passage of rain water across the cavity.

Caulking

9.20.15.3. The junction between door and window frames with masonry shall be caulked in conformance with Subsection 9.28.4.

Sill drip

9.20.15.4. Except for wall openings located less than 150 mm above ground level, where a concealed flashing is not installed beneath window and door sills, such sills shall be provided with an outward slope and a drip located not less than 25 mm from the wall surface.

SUBSECTION 9.20.16. PROTECTION

Laying temperature of mortar and masonry

9.20.16.1. Mortar and masonry shall be maintained at a temperature of not less than 5°C during installation and for not less than 48 h after installation. No frozen material shall be used in the mix.

Protection from the elements

9.20.16.2. The top surface of uncompleted masonry exposed to the weather shall be completely covered with a waterproofing material when construction is not in progress.

SUBSECTION 9.20.17. REINFORCEMENT FOR EARTHQUAKE RESISTANCE

9.20.17.1. Where reinforcement is required in this Section, masonry walls shall be reinforced horizontally and vertically with steel having a total cross-sectional area of not less than 0.002 times the cross-sectional area of the wall, so that not less than 1/3 of the required steel area is installed either horizontally or vertically and the remainder in the other direction.

9.20.17.2. Where reinforcement for masonry is required in this Section, it shall be installed in conformance with the requirements for reinforced masonry as contained in CAN3-A371, "Masonry Construction for Buildings."

SECTION 9.21 CHIMNEYS AND FLUES

SUBSECTION 9.21.1. GENERAL

Chimney design

9.21.1.1. This Section applies to rectangular chimneys of brick masonry or concrete not exceeding 12 m in height serving fireplaces or serving appliances having a combined total rated heat output of 120 kW or less, and to flue pipes serving appliances regulated by Subsection 9.34.2.

Factory-built chimneys

9.21.1.2. Factory-built chimneys serving solid fuel-burning appliances, and their installation, shall conform to CAN4-S629, "Standard for 650°C Factory-Built Chimneys."

9.21.1.3. Chimneys other than those described in Articles 9.21.1.1. and 9.21.1.2., gas vents, flue pipes serving gas- or oil-burning appliances and associated equipment shall conform to Section 6.3.

9.21.1.4. Except for a factory-built chimney located directly above a solid-fuel burning appliance, every factory-built chimney serving a solid-fuel burning appliance shall be provided with an accessible tee section to provide access for cleaning the chimney.

9.21.1.5. The walls of any chimney or flue pipe shall be constructed to be gas-, smoke- and flame-tight.

SUBSECTION 9.21.2. CHIMNEY FLUES

Chimney flue limitation

9.21.2.1. A chimney flue serving a fireplace or incinerator shall not serve any other appliance.

9.21.2.2. Except as required in Article 9.21.2.1., 2 or more fuel-burning appliances may be connected to the same chimney flue provided adequate draft is maintained for the connected appliances and the connections are made as described in Article 9.21.2.3.

9.21.2.3.(1) Where 2 or more fuel-burning appliances are connected to the same chimney flue, the appliances must be located on the same storey.

(2) The chimney flue connection for a solid fuel-burning appliance shall be below connections for appliances burning oil.

(3) Solid fuel-burning appliances shall not be connected to a chimney flue serving a gas burning appliance.

Angle of
chimney flue

9.21.2.4. Chimney flues shall not be inclined more than 45° to the vertical.

9.21.2.5. The size of a chimney flue serving 1 or more appliances having a maximum rated input shall conform to Table 9.21.2.A. unless calculations are provided to show that smaller sizes can be justified.

Table 9.21.2.A.
Forming Part of Articles 9.21.2.2. and 9.21.2.5.

FLUE SIZES		
Maximum Rated Input of One or More Appliances, kW	Minimum Size of <u>Flue</u> , mm	
	Round	Rectangular
30	150	200 by 200
50	175	200 by 200
80	200	200 by 200
120	225	200 by 300
Column 1	2	3

9.21.2.6. The minimum size of a chimney flue serving a masonry fireplace shall be 225 mm in diameter for round flues and 200 mm by 300 mm for rectangular flues.

9.21.2.7. Where a chimney flue serves only 1 appliance, the flue area shall be at least equal to that of the flue pipe connected to it.

9.21.2.8. The width of an oval chimney flue shall be not less than 2/3 its breadth.

SUBSECTION 9.21.3. CHIMNEY LINING

- Chimney lining 9.21.3.1. Every masonry or concrete chimney shall have a lining of clay, firebrick or metal.
- 9.21.3.2. Liners for chimneys shall be constructed so as to prevent condensed flue gases from penetrating the joints and entering the space between the liner and the surrounding masonry.
- Clay liner specifications 9.21.3.3. Clay liners shall conform to ASTM C315, "Clay Flue Linings." Such liners shall be not less than 15.9 mm thick and shall be capable of resisting, without softening or cracking, a temperature of 1 100°C.
- Firebrick liners specifications 9.21.3.4. Firebrick liners shall conform to ASTM C64, "Refractories for Incinerators and Boilers." Such firebrick shall be laid with high temperature cement mortar conforming to CGSB 10-GP-3Ma, "Refractory Mortar, Air Setting."
- Installation of chimney liners 9.21.3.5. Chimney liners shall be installed when the surrounding masonry or concrete is placed. Spaces between the liner and surrounding masonry shall not be filled with mortar where the chimney walls are less than 190 mm in thickness.
- Mortar for clay liners 9.21.3.6.(1) Clay flue linings used in a chimney serving a solid fuel-burning fireplace or appliance shall be laid in a full bed of mortar consisting of
- (a) 1 part portland cement to approximately 3 parts sand by volume, or
 - (b) high temperature cement mortar conforming to CGSB 10-GP-3Ma "Refractory Mortar, Air-setting".
- (2) Clay flue linings in chimneys serving non-solid fuel-burning appliances shall be laid in a full bed of mortar as described in clause (a).
- Metal liners 9.21.3.7. Metal liners shall be constructed of at least 0.3 mm thick stainless steel.
- 9.21.3.8. Metal liners shall only be used in chimneys serving appliances with an intended flue gas temperature not in excess of 540°C.
- 9.21.3.9. Chimney liners shall extend from a point not less than 200 mm below the lowest flue pipe connection to a point not less than 50 mm above the chimney cap.

SUBSECTION 9.21.4. MASONRY AND CONCRETE CHIMNEY CONSTRUCTION

Unit masonry chimney

9.21.4.1. Unit masonry shall conform to Section 9.20.

Concrete for chimneys

9.21.4.2. Concrete shall conform to Section 9.3.

Footings for chimneys

9.21.4.3. Footings for masonry chimneys and concrete chimneys shall conform to the requirements in Section 9.15.

Height of chimney flues

9.21.4.4.(1) A chimney flue shall extend not less than

(a) 900 mm above the highest point at which the chimney comes in contact with the roof, and

(b) not less than 600 mm above the highest roof surface or structure within 3 m of the chimney.

(2) Not more than 200 mm of the chimney flue above the top of the chimney cap may be considered in computing this height.

(3) Chimneys shall be braced when necessary to provide lateral stability.

Chimney caps

9.21.4.5. The top of a chimney shall have a waterproof cap of concrete, masonry or metal. The cap shall slope from the lining and be provided with a drip not less than 25 mm from the chimney wall. Jointed masonry chimney caps shall have flashing installed beneath the cap extending from the liner to the drip edge.

Chimney flue cleanout

9.21.4.6.(1) Except for chimney flue serving a wood burning stove, a cleanout opening equipped with a metal frame and a tight fitting metal door shall be installed near the base of the chimney.

(2) Where a thimble or flue ring is used as a cleanout, the chimney flue shall extend downward not less than 150 mm and not more than 200 mm below the thimble or flue ring.

Masonry chimney wall thickness

9.21.4.7. The walls of a masonry chimney shall be built of solid units not less than 75 mm thick.

Separation of chimney flues

9.21.4.8. Flue liners in the same chimney shall be separated by not less than 75 mm of masonry or concrete exclusive of liners where clay liners are

used, or 90 mm of firebrick where firebrick liners are used. Such flue liners shall be installed to prevent significant lateral movement.

Junction
flashing

9.21.4.9. Junctions with adjacent materials shall be adequately flashed to shed water.

SUBSECTION 9.21.5. FLUE PIPES

Flue pipe
specification

9.21.5.1. Flue pipes connecting a solid fuel-burning stove, range or space heater to a chimney flue shall conform to Article 9.34.2.1.

9.21.5.2. RESERVED.

9.21.5.3. RESERVED.

9.21.5.4. RESERVED.

Flue pipe
connection

9.21.5.5. The flue pipe connection with the chimney shall be made by a metal thimble or masonry flue ring. The connection shall be tight and made so that the flue pipe does not extend into the chimney flue.

9.21.5.6. RESERVED.

9.21.5.7. RESERVED.

9.21.5.8. A flue pipe may pass through a wall of combustible construction provided a clearance of at least 450 mm is maintained between the flue pipe and the combustible material. This clearance may be reduced to 225 mm when 0.33 mm thick sheet metal is applied at least 25 mm from the flue pipe using noncombustible spacers.

9.21.5.9. RESERVED.

9.21.5.10. RESERVED.

SUBSECTION 9.21.6. CLEARANCE FROM COMBUSTIBLE CONSTRUCTION

Clearance from
combustible
construction

9.21.6.1. The clearance between masonry or concrete chimneys and combustible framing shall be not less than 50 mm for interior chimneys and 12 mm for exterior chimneys.

9.21.6.2. A clearance of not less than 150 mm shall be provided between a cleanout opening and combustible material.

9.21.6.3. All spaces between masonry or concrete chimneys and combustible framing shall be sealed top or bottom with noncombustible material.

Flooring
clearance

9.21.6.4. Flooring shall have not less than a 12 mm clearance from masonry or concrete chimneys.

Clearance from
unprotected
combustible
material

9.21.6.5.(1) The clearance between flue pipes serving a solid fuel-burning appliance and unprotected combustible material shall be not less than 450 mm.

(2) The clearance may be reduced to the values shown in Table 9.21.6.A. where combustible material is protected.

Table 9.21.6.A.
Forming Part of Article 9.21.6.5.

CLEARANCE BETWEEN A FLUE PIPE AND PROTECTED COMBUSTIBLE MATERIAL	
Type of Protection Applied to <u>Combustible</u> Material or <u>Flue Pipe</u> Covering All Surfaces Within 450 mm of <u>Flue Pipe</u>	Clearance Between <u>Flue Pipe</u> and <u>Combustible</u> Material, mm
6 mm asbestos millboard spaced out 25 mm by <u>noncombustible</u> spacers	300
0.33 mm sheet metal on 6 mm asbestos millboard	300
0.33 mm sheet metal spaced out 25 mm from <u>combustible</u> surfaces or the <u>flue pipe</u> by <u>noncombustible</u> spacers	225
0.33 mm sheet metal on 3 mm asbestos millboard spaced out 25 mm by <u>noncombustible</u> spacers	225
Ceramic tiles or equivalent noncombustible material on noncombustible supports and spaced out at least 25 mm by <u>noncombustible</u> spacers	225
Solid brick wall spaced out at least 25 mm	225
Column 1	2

9.21.6.6. Joists or beams may be supported on masonry walls which enclose chimney flues provided the combustible members are separated from the flue by a minimum of 290 mm of solid masonry.

SECTION 9.22 FIREPLACES

SUBSECTION 9.22.1. GENERAL

Fireplaces

9.22.1.1. Except as otherwise stated in this Section, unit masonry shall conform to Section 9.20 and concrete to Section 9.3.

Footings for
fireplaces

9.22.1.2. Footings for masonry and concrete
fireplaces shall conform to Section 9.15.

9.22.1.3. Except when otherwise specifically stated
herein, this Section applies to masonry fireplaces
constructed on-site.

Combustion air

9.22.1.4. Fireplaces, including factory-built
fireplaces, shall have a supply of combustion air in
accordance with Article 9.22.1.5.

9.22.1.5.(1) The combustion air in Article
9.22.1.4. shall be supplied by a duct having a
minimum diameter of 100 mm or equivalent area.

(2) The air supply duct shall be non-combustible,
corrosion-resistant and where exposed to room air
shall be insulated for its entire length with thermal
resistant insulation having a thermal resistance
value of RSI 1.41.

(3) The air supply outlet shall be located as close
to the fireplace opening as possible.

(4) When the air supply outlet is placed inside the
fire chamber, it shall be located at the front centre
of the chamber hearth and it shall be equipped with a
non-combustible hood which when open will direct air
away from the fire and shall be designed to prevent
embers from entering the supply duct.

(5) The supply duct shall contain a tight fitting
damper when in the closed position and such damper
shall be located close to the outlet end.

(6) The damper shall be operable from the room
containing the fireplace and the control mechanism
shall clearly indicate the actual position of the
damper.

(7) The air supply duct shall be installed with a
minimum 50 mm clearance from combustibles for 1 m
distance measured away from any outlet located in the
fire chamber.

(8) The exterior air supply inlet duct shall be
protected against the entry of rain and direct wind.
The inlet opening shall have an insect screen of
corrosion-resistant material.

(9) The exterior air duct inlet shall be located to
avoid being blocked by either snow or fallen leaves.

SUBSECTION 9.22.2. FIREPLACE LINERS

Fireplace liners

9.22.2.1. Except where a fireplace is equipped with a steel liner, every fireplace shall have a firebrick liner not less than 50 mm thick for the sides and back and not less than 25 mm thick for the floor.

High temperature mortar

9.22.2.2. Firebrick liners shall be laid with high temperature cement mortar conforming to CGSB 10-GP-3Ma, "Refractory Mortar, Air Setting."

SUBSECTION 9.22.3. WALL THICKNESS

Wall thickness

9.22.3.1. Except as provided in Article 9.22.3.2., the back and sides of a fireplace shall be at least 190 mm thick where a metal liner or a 50 mm thick firebrick liner is used, including the thickness of the masonry liner. Portions of the back exposed to the outside may be 140 mm thick. Joints between a firebrick liner and the adjacent back up masonry shall be offset.

9.22.3.2. When a steel fireplace liner is used with an air circulating chamber surrounding the firebox, the back and sides of the fireplace shall consist of not less than 90 mm thickness of solid masonry units or 190 mm thickness of hollow masonry units.

SUBSECTION 9.22.4. OPENINGS

Support for masonry openings

9.22.4.1. Masonry above openings shall be supported by steel lintels conforming to Article 9.20.5.3., reinforced concrete or a masonry arch.

SUBSECTION 9.22.5. HEARTH

Hearth construction

9.22.5.1. Fireplaces shall have a noncombustible hearth extending not less than 400 mm in front of the fireplace opening measured from the facing, and not less than 200 mm beyond each side of the fireplace opening.

9.22.5.2. The hearth shall be supported on not less than a 140 mm thick trimmer arch of solid masonry units or not less than a 100 mm thick reinforced concrete trimmer.

SUBSECTION 9.22.6. DAMPER

Metal damper

9.22.6.1. The throat of every fireplace shall be equipped with a metal damper sufficiently large to cover the full area of the throat opening.

SUBSECTION 9.22.7. SMOKE CHAMBER

Smoke chambers

9.22.7.1. The sides of the smoke chamber connecting a fireplace throat with a flue shall not be sloped at an angle greater than 45° to the vertical.

9.22.7.2. The thickness of masonry walls surrounding the smoke chamber shall be at least 190 mm at the sides, front and back, except that the portions of the back exposed to the outside may be 140 mm thick.

SUBSECTION 9.22.8. FACTORY-BUILT FIREPLACES

Factory-built
fireplaces

9.22.8.1. Factory-built fireplaces shall conform to ULC S610, "Standard for Factory-Built Fireplaces," and their installation shall conform to Sentence 9.34.2.1.(2).

SUBSECTION 9.22.9. CLEARANCE OF COMBUSTIBLE MATERIAL

9.22.9.1. Combustible material shall not be placed on or near the face of a fireplace within 150 mm of the fireplace opening, except that where the combustible material projects more than 38 mm out from the face of the fireplace above the opening, such material shall be at least 300 mm above the top of the opening.

9.22.9.2. Metal exposed to the interior of a fireplace such as the damper control mechanism shall have at least a 50 mm clearance from any combustible material on the face of the fireplace where such metal penetrates through the face of the fireplace.

9.22.9.3. At least a 100 mm clearance shall be provided between the back and sides of a fireplace and combustible framing, except that a 50 mm clearance is permitted where the fireplace is located in an exterior wall.

9.22.9.4. At least a 50 mm clearance shall be provided between the back and sides of the smoke chamber of a fireplace and combustible framing, except that a 25 mm clearance is permitted where the fireplace is located in an exterior wall.

SUBSECTION 9.22.10. FIREPLACE INSERTS

Fireplace
inserts

9.22.10.1. Fireplace inserts shall conform to ULCS628, "Standard for Fireplace Inserts," and their installation shall conform to Sentence 9.34.2.1.(2).

(2) Fireplace inserts described in Sentence (1) may be installed in existing fireplaces only if a minimum

thickness of 190 mm of solid masonry is provided between the firebox or smoke chamber and any existing combustible materials, unless the insert is listed for lesser clearances.

(3) Any fireplace insert installed in a masonry fireplace shall

- (a) have a listed metal chimney liner installed from the insert collar to the top of the chimney,
- (b) be provided with a chimney flue cleanout conforming to Article 9.21.4.6. in any inaccessible area, or
- (c) have a listed direct sealed connection to the chimney flue.

SECTION 9.23 WOOD-FRAME CONSTRUCTION

SUBSECTION 9.23.1. SCOPE

Wood-frame
construction

9.23.1.1. This Section applies to conventional wood-frame construction in which the framing members are spaced not more than 600 mm o.c.

Design live load

9.23.1.2. The requirements in this Section with regard to floor framing, subflooring and their fastenings apply to floors for which the design live load does not exceed 2.4 kPa.

9.23.1.3. The requirements in this Section with regard to wall framing and its fastenings apply to walls which support floors for which the design live load does not exceed 2.4 kPa on any floor.

9.23.1.4. Where the conditions in Articles 9.23.1.2. or 9.23.1.3. are exceeded, the design of the framing and fastening shall conform to Subsection 4.3.1.

Post, beam and
plank
construction

9.23.1.5. Post, beam and plank construction and plank frame wall construction shall conform to Section 9.24.

SUBSECTION 9.23.2. GENERAL

Rigidity

9.23.2.1. All members shall be so framed, anchored, fastened, tied and braced to provide the necessary strength and rigidity.

Treatment of
end members

9.23.2.2. Ends of wood joists or beams and other members framing into masonry or concrete shall be treated to prevent decay where the bottom of the

member is at or below ground level, or a 12 mm air space shall be provided at the end and sides of the member.

9.23.2.3.(1) Wood framing members that are not pressure treated with a wood preservative and which are supported on concrete in contact with the ground or fill shall be separated from the concrete by at least 0.05 mm polyethylene film or Type S roll roofing.

(2) Such dampproofing material is not required where the wood member is at least 150 mm above the ground.

9.23.2.4. Lumber shall conform to the appropriate requirements in Subsection 9.3.2.

9.23.2.5.(1) Where termites are known to exist, unless pressure treated with a chemical that is toxic to such termites in accordance with Article 9.3.2.9., wood steps shall rest on a non-cellulosic base or apron extending at least 150 mm above grade.

(2) Wood lattice or skirting around porches shall be separated from piers and soil by at least 50 mm.

SUBSECTION 9.23.3. NAILS AND STAPLES

Nails and
staples
specification

9.23.3.1. Nails specified in this Section shall be common steel wire nails or common spiral nails, conforming to CSA B111, "Wire Nails, Spikes and Staples" unless otherwise indicated.

Nail length

9.23.3.2.(1) All nails shall be long enough so that not less than 1/2 their length penetrates into the second member.

(2) Splitting of wood members shall be minimized by staggering the nails in the direction of the grain and by keeping nails well in from the edges.

9.23.3.3. Except as provided in Article 9.23.3.4., nailing of framing shall conform to Table 9.23.3.A.

9.23.3.4. Where the bottom wall plate or sole plate of an exterior wall is not nailed to joists or blocking in conformance with Table 9.23.3.A., the exterior wall may be fastened to the floor framing by having plywood or waferboard sheathing extend down over floor framing and fastened to the floor framing by nails or staples conforming to Article 9.23.3.5., or by tying the wall framing to the floor framing by 50 mm wide galvanized-metal strips of at least 0.41 mm in thickness, spaced not more than 1.2 m apart, and fastened at each end with at least two 63 mm nails.

Table 9.23.3.A.
Forming Part of Articles 9.23.3.3. and 9.23.3.4.

Construction Detail	Minimum Length Nails, mm	Minimum Number or Maximum Spacing of Nails
Floor joist to plate--toe nail	82	2
Wood or metal strapping to underside of floor joists	57	2
Cross bridging to joists	57	2 each end
Double header or trimmer joists	76	300 mm (o.c.)
Floor joist to stud (balloon construction)	76	2
Ledger strip to wood beam	82	2 per joist
Joist to joist splice (see also Table 9.23.13.A.)	76	2 at each end
Tail joist to adjacent header joist (end nailed) around openings	[82	5
Each header joist to adjacent trimmer joist (end nailed) around openings	[101	3
Stud to wall plate (each end) toe nail or end nail	[82	5
Doubled studs at openings, or studs at walls or wall intersections and corners	[101	3
Doubled top wall plates	63	4
Bottom wall plate or sole plate to joists or blocking (exterior walls)(1)	82	2
Interior walls to framing or subflooring	76	750 mm (o.c.)
Horizontal member over openings in non-loadbearing walls--each end	76	600 mm (o.c.)
Lintels to studs	82	400 mm (o.c.)
Ceiling joist to plate--toe nail each end	82	600 mm (o.c.)
Roof rafter, roof truss or roof joist to plate--toe nail	82	2
Rafter plate to each ceiling joist	82	2 at each end
Rafter to joist (with ridge supported)	82	2
Rafter to joist (with ridge unsupported)	82	3
Gusset plate to each rafter at peak	101	2
Rafter to ridge board--toe nail	76	3
--end nail	76	See Table 9.23.13.A.
Collar tie to rafter --each end	57	4
Collar tie lateral support to each collar tie	57	4
Jack rafter to hip or valley rafter	82	3
Roof strut to rafter	76	2
Roof strut to loadbearing wall--toe nail	82	3
38 mm by 140 mm or less plank decking to support	82	2
Plank decking wider than 38 mm by 140 mm to support	82	2
38 mm edge laid plank decking to support (toe nail)	82	3
38 mm edge laid plank to each other	76	1
	76	450 mm (o.c.)
Column 1	2	3

Note to Table 9.23.3.A.:

(1) See Article 9.23.3.4.

9.23.3.5.(1) Fastening of sheathing and subflooring shall conform to Table 9.23.3.B. Staples shall not be less than 1.6 mm in diameter or thickness, with not less than a 9.5 mm crown driven with the crown parallel to framing.

(2) Roofing nails for the attachment of fibreboard or gypsum sheathing shall not be less than 3.2 mm in diameter with a minimum head diameter of 11.1 mm.

Table 9.23.3.B.
Forming Part of Article 9.23.3.5.

Element	Minimum Length of Fasteners for Sheathing and Subfloor Attachment, mm				Min. No. or Max. Spacing of Fasteners
	Common or Spiral Nails	Ring Thread Nails	Roofing Nails	Staples	
Plywood or waferboard up to 10 mm thick	51	45	N/A	38	150 mm (o.c) along edges and 300 mm (o.c.) along intermediate supports
Plywood or waferboard from 10 mm to 20 mm thick	51	45	N/A	51	
Plywood or waferboard over 20 mm thick	57	51	N/A	N/A	
Fibreboard sheathing up to 13 mm thick	N/A	N/A	44	38	
Gypsum sheathing up to 13 mm thick	N/A	N/A	44	N/A	
Board lumber 184 mm or less wide	51	N/A	N/A	51	2 per support
Board lumber more than 184 mm wide	51	N/A	N/A	51	3 per support
Column 1	2	3	4	5	6

SUBSECTION 9.23.4. ALLOWABLE SPANS

9.23.4.1. Except as required in Article 9.23.4.3., the spans for wood joists, rafters and beams shall

conform to the spans shown in Tables A-1 to A-11 for the uniform live loads shown in the tables.

Table 9.23.4.A.
Forming Part of Article 9.23.4.2.

**Maximum Spans for Steel Beams
in Basements, Cellars and Crawl Spaces in Dwellings
for One Storey Dwellings**

Section	Width of Floor to be Supported						
	2400 mm mm	3000 mm mm	3600 mm mm	4200 mm mm	4800 mm mm	5400 mm mm	6000 mm mm
W150x22	4800(1)	4500(1)	4200(1)	4000(1)	3800(1)	3700	3500
W150x30	5400(1)	5000(1)	4700(1)	4500(1)	4300(1)	4200(1)	4100(1)
W200x21	5700(1)	5300(1)	5000	4600	4300	4100	3900
W150x37	5900(1)	5500(1)	5200(1)	4900(1)	4800(1)	4600(1)	4500(1)
S200x27	6100(1)	5600(1)	5300(1)	5100(1)	4900(1)	4800(1)	4600(1)
W200x27	6200(1)	5800(1)	5400(1)	5200(1)	5000(1)	4900(1)	4800(1)
S200x34	6300(1)	5900(1)	5500(1)	5300(1)	5100(1)	5000(1)	4900(1)
W200x31	6600(1)	6200(1)	5800(1)	5600(1)	5400(1)	5300(1)	5100(1)
W250x24	6800(1)	6400(1)	5900	5500	5200	4900	4700
W200x36	6800(1)	6400(1)	6000(1)	5800(1)	5600(1)	5500(1)	5300(1)
W200x42	7300(1)	6700(1)	6400(1)	6200(1)	6000(1)	5800(1)	5700(1)
W200x46	7500(1)	7000(1)	6700(1)	6400(1)	6200(1)	6100(1)	5900(1)
W250x33	7700(1)	7200(1)	6900(1)	6600(1)	6400(1)	6200(1)	6000
S250x38	7800(1)	7300(1)	7000(1)	6800(1)	6500(1)	6300(1)	6200(1)
W250x39	8200(1)	7800(1)	7400(1)	7200(1)	6900(1)	6700(1)	6500(1)
S250x52	8300(1)	7900(1)	7500(1)	7200(1)	7000(1)	6800(1)	6600(1)
W310x31	8500(1)	8100(1)	7700	7200	6800	6400	6100
W310x39	9400(1)	8900(1)	8500(1)	8200(1)	7900(1)	7600(1)	7300
S310x47	9600(1)	9100(1)	8700(1)	8400(1)	8100(1)	7800(1)	7600(1)
S310x52	9800(1)	9300(1)	8900(1)	8500(1)	8200(1)	8000(1)	7800(1)
W310x45	9900(1)	9400(1)	9000(1)	8600(1)	8300(1)	8100(1)	7900(1)

(1) Span controlled by deflection limited to $L/360$.

Notes to Table 9.23.4.A.:

- 1) Width of floor supported means half the sum of the floor span on both sides of the beam.
- 2) For widths of floor intermediate between those shown in the Table, straight line interpolation may be used in determining the maximum beam spans.
- 3) Table is based on:
 - a) Simply supported beam spans.
 - b) Laterally supported top flange.
 - c) Yield strength 300 MPa.
 - d) Live Load = 1.9 kN/sq.m-1st floor
Dead Load = 1.5 kN/sq.m

Table 9.23.4.B.
Forming Part of Article 9.23.4.2.

Maximum Spans for Steel Beams in Basements, Cellars and Crawl Spaces in Dwellings for Two Storey Dwellings							
Section	Width of Floor to be Supported						
	2400 mm mm	3000 mm mm	3600 mm mm	4200 mm mm	4800 mm mm	5400 mm mm	6000 mm mm
W150x22	4000 ⁽¹⁾	3700	3400	3100	3000	2800	2700
W150x30	4600 ⁽¹⁾	4300 ⁽¹⁾	4100 ⁽¹⁾	4000 ⁽¹⁾	3700	3600	3400
W200x21	4500	4100	3700	3500	3300	3100	3000
W150x37	5000 ⁽¹⁾	4800 ⁽¹⁾	4500 ⁽¹⁾	4400 ⁽¹⁾	4200 ⁽¹⁾	4000	3900
S200x27	5200 ⁽¹⁾	4900 ⁽¹⁾	4500	4200	4000	3800	3600
W200x27	5300 ⁽¹⁾	5000	4600	4300	4000	3800	3600
S200x34	5400 ⁽¹⁾	5100 ⁽¹⁾	4900 ⁽¹⁾	4600	4300	4100	3900
W200x31	5700 ⁽¹⁾	5400 ⁽¹⁾	5100	4700	4500	4200	4000
W250x24	5400	4900	4500	4200	4000	3800	3600
W200x36	5900 ⁽¹⁾	5600 ⁽¹⁾	5300 ⁽¹⁾	5100	4800	4500	4300
W200x42	6300 ⁽¹⁾	6000 ⁽¹⁾	5700 ⁽¹⁾	5500 ⁽¹⁾	5200	4900	4700
W200x46	6600 ⁽¹⁾	6200 ⁽¹⁾	5900 ⁽¹⁾	5700 ⁽¹⁾	5500	5200	5000
W250x33	6800 ⁽¹⁾	6300	5800	5400	5100	4800	4600
S250x38	6900 ⁽¹⁾	6500 ⁽¹⁾	6100	5700	5300	5000	4800
W250x39	7300 ⁽¹⁾	6900 ⁽¹⁾	6400	6000	5600	5300	5100
S250x52	7400 ⁽¹⁾	7000 ⁽¹⁾	6600 ⁽¹⁾	6400 ⁽¹⁾	6000	5700	5400
W310x31	7100	6400	5900	5500	5100	4900	4600
W310x39	8300 ⁽¹⁾	7600	7000	6500	6100	5800	5500
S310x47	8500 ⁽¹⁾	8000 ⁽¹⁾	7500	7000	6600	6200	5900
S310x52	8700 ⁽¹⁾	8200 ⁽¹⁾	7800	7200	6800	6400	6100
W310x45	8800 ⁽¹⁾	8300	7600	7100	6700	6300	6000

⁽¹⁾Span controlled by deflection limited to L/360.

Notes to Table 9.23.4.B.:

- 1) Width of floor supported means half the sum of the floor span on both sides of the beam.
- 2) For widths of floor intermediate between those shown in the Table, straight line interpolation may be used in determining the maximum beam spans.
- 3) Table is based on:
 - a) Simply supported beam spans.
 - b) Laterally supported top flange.
 - c) Yield strength 300 MPa.
 - d) Live Load = 1.9 kN/sq.m-1st floor
= 1.4 kN/sq.m-2nd floor
Dead Load = 1.5 kN/sq.m

9.23.4.2.(1) The spans for steel beams with laterally supported top flanges that support floors in 1- and 2-storey houses shall conform to Tables 9.23.4.A. or 9.23.4.B., and such beams shall be constructed of steel having a strength at least equal to Grade 300 W steel in CAN3-G40.21, "Structural Quality Steels."

(2) A beam may be considered to be laterally supported if:

- (a) the wood joists bear on its top flange at intervals of 610 mm or less over its entire length,
- (b) the load being applied to this beam is transmitted through the joists, and
- (c) 19 mm x 38 mm wood strips in contact with the top flange are nailed on both sides of the beam to the bottom of the joist supported.

9.23.4.3. Where a floor is required to be designed to support a concentrated load as specified in Table 4.1.6.B., or to support a uniform live load in excess of those shown in the span tables, such spans shall be determined in conformance with Subsection 4.3.1.

Concrete
topping

9.23.4.4. Where a floor is required to support a concrete topping, the spans shown in Tables A-2 and A-3 or the spacing of the members shall be reduced to allow for the loads due to the topping.

SUBSECTION 9.23.5. NOTCHING AND DRILLING

Notches and
drilling

9.23.5.1. Holes drilled in roof, floor or ceiling framing members shall be not larger than 1/4 the depth of the member and shall be located not less than 50 mm from the edges, unless the depth of the member is increased by the size of the hole.

9.23.5.2. Floor, roof and ceiling framing members may be notched provided the notch is located on the top of the member within 1/2 the joist depth from the edge of bearing and is not deeper than 1/3 the joist depth, unless the depth of the member is increased by the size of the notch.

9.23.5.3. Wall studs shall not be notched, drilled or otherwise damaged so that the undamaged portion of the stud is less than 2/3 the depth of the stud if the stud is loadbearing or 40 mm if the stud is non-loadbearing, unless the weakened studs are suitably reinforced.

9.23.5.4. Top plates in walls shall not be notched, drilled or otherwise weakened to reduce the undamaged width to less than 50 mm unless the weakened plates are suitably reinforced.

9.23.5.5. Roof truss members shall not be notched, drilled or otherwise weakened unless such notching or drilling is allowed for in the design of the truss.

SUBSECTION 9.23.6. ANCHORAGE

Anchorage

9.23.6.1. Building frames shall be anchored to the foundation unless a structural analysis of wind and earth pressures shows anchorage is not required.

9.23.6.2.(1) Except as provided in Article 9.23.6.4., when anchorage is required, it shall be provided by embedding the ends of the first floor joists in concrete, or fastening the sill plate to the foundation with not less than 12.7 mm diam anchor bolts spaced not more than 2.4 m o.c.

(2) Anchor bolts shall be embedded not less than 100 mm in the foundation and so designed that they may be tightened without withdrawing them from the foundation.

9.23.6.3. Exterior columns and posts shall be anchored to resist uplift and lateral movement.

9.23.6.4.(1) Buildings not more than 4.3 m in width and not more than 1 storey in building height which are not anchored to a foundation as described in Article 9.23.6.2., shall be anchored by means of corrosion-resistant steel rods or cables of at least 12.7 mm diam.

(2) The steel rods or cables must be attached to the building frame near each corner of the building in a manner that will develop the full strength of the rod or cable having a withdrawal resistance of not less than 500 N for each meter of length of the building.

SUBSECTION 9.23.7. SILL PLATES

Sill plates

9.23.7.1. Where sill plates provide bearing for the floor system they shall be not less than 38 mm by 89 mm material.

9.23.7.2.(1) Sill plates shall be levelled by setting them on a full bed of mortar.

(2) Where the top of the foundation is level, they may be laid directly on the foundation provided the junction between the foundation and the sill plate is caulked or sealed with an acceptable gasket plate or a layer of mineral wool at least 25 mm thick before being compressed.

SUBSECTION 9.23.8. BEAMS TO SUPPORT FLOORS

Beams

9.23.8.1. Beams shall have even and level bearing. Beams shall have not less than 89 mm length of bearing at end supports.

Steel beams

9.23.8.2. Steel beams shall be shop primed.

Built-up wood beams

9.23.8.3. Where a beam is made up of individual pieces of lumber that are nailed together, the individual members shall be 38 mm or greater in thickness and installed on edge.

9.23.8.4. Except as permitted in Article 9.23.8.5., where individual members of a built-up beam are butted together to form a joint, the joint shall occur over a support.

9.23.8.5. Where a beam is continuous over more than 1 span, individual members are permitted to be butted together to form a joint at or within 150 mm of the end quarter points of the clear spans provided the quarter points are not those closest to the ends of the beam.

9.23.8.6. Joints in individual members of beam that are located at or near the end quarter points shall not occur in adjacent members at the same quarter point and shall not reduce the effective beam width by more than half.

9.23.8.7. Not more than 1 butt joint shall occur in any individual member of a built-up beam within any 1 span.

9.23.8.8. Except as provided in Article 9.23.8.9., where 38 mm members are laid on edge to form a built-up beam, individual members shall be nailed together with a double row of nails at least 89 mm in length, spaced not more than 450 mm apart in each row with the end nails located 100 mm to 150 mm from the end of each piece.

9.23.8.9. Where 38 mm members in built-up wood beams are not nailed together as provided in Article 9.23.8.8., they shall be bolted together with at least 12.7 mm diam bolts equipped with washers and spaced not more than 1.2 m o.c., with the end bolts located not more than 600 mm from the ends of the members.

SUBSECTION 9.23.9. FLOOR JOISTS

Floor joists, methods of support

9.23.9.1.(1) Except when supported on ribbon boards, floor joists shall have not less than 38 mm length of end bearing.

(2) Ribbon boards shall be not less than 19 mm by 89 mm lumber let into the studs.

9.23.9.2. Floor joists may be supported on the tops of beams or may be framed into the sides of beams.

9.23.9.3.(1) When framed into the side of a wood beam, the joists shall be supported on joist hangers or other acceptable mechanical connectors or on not less than 38 mm by 64 mm ledger strips nailed to the side of the beam.

(2) Ledger strips 38 mm by 38 mm may be used provided each joist is nailed to the beam by at least four 89 mm nails, in addition to the nailing for the ledger strip required in Table 9.23.3.A.

9.23.9.4.(1) When framed into the side of a steel beam, the joists shall be supported on the bottom flange of the beam or on not less than 38 mm by 38 mm lumber bolted to the web with not less than 6.3 mm diam bolts spaced not more than 600 mm apart.

(2) Such joists shall be spliced above the beam with not less than 38 mm by 38 mm lumber at least 600 mm long to support the flooring.

(3) Not less than a 12 mm space shall be provided between the splice and the beam to allow for shrinkage of the wood joists.

End restraint

9.23.9.5. Except as provided in Article 9.23.9.8., bottoms of floor joists shall be restrained from twisting at each end by toe-nailing to the supports, end-nailing to the header joists or by providing continuous strapping, blocking between the joists or cross-bridging near the supports.

Bridging

9.23.9.6. Except as provided in Article 9.23.9.8., and except where a floor joist span is at least 460 mm less than the maximum span permitted in Tables A-2 and A-3, provision shall be made for load distribution between joists by the use of multiple bridging located not more than 2.1 m from each support and at intermediate locations so that the distance between rows of bridging does not exceed 2.1 m.

9.23.9.7. Multiple bridging in Article 9.23.9.6. shall consist of at least 19 mm by 64 mm or 38 mm by 38 mm cross bridging or 38 mm thick solid blocking securely fastened between joists together with continuous wood strapping of at least 19 mm by 64 mm in size nailed to the bottoms of the joists and fastened at each end to the header or sill,

except that where a ceiling finish is provided no continuous strapping is required.

9.23.9.8. Joist restraint or bridging required by Articles 9.23.9.5. and 9.23.9.6. is not necessary when panel type subfloor is fastened to the joists with an adhesive in addition to the mechanical fasteners required by Subsection 9.23.3.

Double joists

9.23.9.9.(1) Header joists around floor openings shall be doubled when they exceed 1.2 m in length.

(2) The size of header joists exceeding 3.2 m in length shall be determined by calculations.

9.23.9.10.(1) Trimmer joists around floor openings shall be doubled when the length of the header joist exceeds 800 mm.

(2) When the header joist exceeds 2 m in length the size of the trimmer joists shall be determined by calculations.

Joist hangers

9.23.9.11. When tail joists and header joists are supported by the floor framing, they shall be supported by suitable joist hangers or nailing.

Support of non-load-bearing walls

9.23.9.12.(1) Non-loadbearing walls parallel to the floor joists shall be supported by joists beneath the wall or on blocking between the joists.

(2) Blocking for the support of non-loadbearing walls shall be not less than 38 mm by 89 mm lumber, spaced not more than 1.2 m apart.

9.23.9.13. Non-loadbearing interior walls at right angles to the floor joists are not restricted as to location.

Support of the loadbearing walls

9.23.9.14. Loadbearing interior walls parallel to floor joists shall be supported by beams or walls of sufficient strength to transfer safely the design loads to vertical supports.

Location of loadbearing interior walls

9.23.9.15 Loadbearing interior walls at right angles to floor joists shall be located not more than 900 mm from the joist support when the wall does not support a floor, and not more than 600 mm from the joist support when the wall supports 1 or more floors, unless the joist size is designed to support such loads.

Cantilevered floor joists

9.23.9.16.(1) Floor joists supporting roof loads shall not be cantilevered more than 400 mm beyond their supports where 38 mm by 184 mm joists are used

and not more than 600 mm beyond their supports where 38 mm by 235 mm or larger joists are used.

(2) The cantilevered portions shall not support floor loads from other storeys unless calculations are provided to show that the allowable design stresses of the cantilevered joists are not exceeded.

9.23.9.17. Where cantilevered floor joists described in Article 9.23.9.16. are at right angles to the main floor joists, the tail joists in the cantilevered portion shall extend inward away from the cantilever support a distance equal to at least 6 times the length of the cantilever, and end nailed to an interior doubled header joist in conformance with Table 9.23.3.A.

SUBSECTION 9.23.10. WALL STUDS

9.23.10.1. The size and spacing of studs shall conform to Table 9.23.10.A.

Position of wall studs

9.23.10.2.(1) Wall studs shall be placed at right angles to the wall face, except that studs on the flat may be used in gable ends of roofs that contain only unfinished space or in non-loadbearing interior walls within the limits described in Article 9.23.10.1.

(2) Wall studs that support only a load from an attic not accessible by a stairway may also be placed on the flat within the limits permitted in Article 9.23.10.1. provided the studs are clad on at least 1 side with plywood or waferboard sheathing fastened to the face of the studs with a structural adhesive and

the portion of the roof supported by the studs does not exceed 2.1 m in width.

Wall studs

9.23.10.3. Wall studs shall be continuous for the full storey height except at openings and shall not be spliced except by finger-jointing with a structural adhesive.

Design of corners and intersections

9.23.10.4.(1) Corners and intersections shall be designed to provide adequate support for the vertical edges of interior and exterior cladding materials, and in no instance shall exterior corners be framed with less than the equivalent of 2 studs.

(2) Where the vertical edge of interior cladding at wall intersections are supported at vertical intervals by blocking or other acceptable methods, the vertical distance between such supports shall not exceed the maximum distance between supports specified in Section 9.30.

Table 9.23.10.A.
Forming Part of Article 9.23.10.1.

SIZE AND SPACING OF STUDS

Type of Wall	Supported Loads (including dead loads)	Minimum Stud Size, mm	Maximum Stud Spacing, mm	Maximum Unsupported Height, m
Interior	No load	38 by 38 38 by 89 flat(1)	400 400	2.4 3.6
	Attic not accessible by a stairway	38 by 64	600	3.0
		38 by 64 flat(1)	400	2.4
		38 by 89	600	3.6
		38 by 89 flat(1)	400	2.4
	Attic accessible by a stairway plus 1 floor, roof load plus 1 floor, attic not accessible by stairway plus 2 floors	38 by 89	400	3.6
	Roof load, Attic accessible by a stairway,	38 by 89	600	3.6
	Attic not accessible by a stairway plus 1 floor	38 by 64	400	2.4
	Attic accessible by a stairway plus 2 floors, or roof load plus 2 floors	38 by 89	300	3.6
		64 by 89	400	3.6
		38 by 140	400	4.2
	Attic accessible by a stairway plus 3 floors, or roof load plus 3 floors	38 by 140	300	4.2
Exterior	Roof with or without attic storage	38 by 64 38 by 89	400 600	2.4 3.0
	Roof with or without attic storage plus 1 floor	38 by 89 38 by 140	400 600	3.0 3.0
Column 1	2	3	4	5

Table 9.23.10.A. (Cont'd)

SIZE AND SPACING OF STUDS				
Type of Wall	Supported Loads (including dead loads)	Minimum Stud Size, mm	Maximum Stud Spacing, mm	Maximum Unsupported Height, m
Exterior	Roof with or without attic storage plus 2 floors	38 by 89 64 by 89 38 by 140	300 400 400	3.0 3.0 3.6
	Roof with or without attic storage plus 3 floors	38 by 140	300	1.8
Column 1	2	3	4	5

Note to Table 9.23.10.A.:

(1) See Article 9.23.10.2.

Double studs

9.23.10.5. Except as provided in Article 9.23.10.6., studs shall be doubled on each side of openings so that the inner studs extend from the lintel to the bottom wall plate and the outer studs extend from the top wall plates to the bottom wall plate.

9.23.10.6. Single studs may be used on either side of openings in non-loadbearing interior walls not required to have fire-resistance ratings provided the studs extend from the top wall plate to the bottom wall plate.

9.23.10.7. Loadbearing walls not sheathed on at least one side shall have mid-height blocking or other suitable lateral support.

SUBSECTION 9.23.11. WALL PLATES

Wall plates

9.23.11.1. Wall plates shall be not less than 38 mm thick and shall be the same width as the wall studs except that in non-loadbearing walls and in loadbearing walls where the studs are located directly over framing members, the bottom wall plate may be 19 mm thick.

Bottom wall

9.23.11.2.(1) A bottom wall plate shall be provided in all cases.

(2) The bottom plate in exterior walls shall not project more than $1/3$ the plate width over the support.

Top plates in
loadbearing walls

9.23.11.3. Except as permitted in Articles
9.23.11.4. to 9.23.11.6., no fewer than 2 top plates
shall be provided in loadbearing walls.

Single top
plates

9.23.11.4. A single top plate may be used in a
section of a loadbearing wall containing a lintel
provided the top plate forms a tie across the lintel.

Single top
plates in
loadbearing walls

9.23.11.5. A single top plate may be used in
loadbearing walls where the concentrated loads from
ceilings, floors and roofs are not more than 50 mm to
one side of the supporting studs and in all
non-loadbearing walls.

Exclusion of
top plates

9.23.11.6. The top plates may be omitted in a
section of loadbearing wall containing a lintel
provided the lintel is tied to the adjacent wall
section with not less than 75 mm by 150 mm by 0.91 mm
thick galvanized steel, or 19 mm by 89 mm by 300 mm
wood splice nailed to each wall section with no fewer
than three 63 mm nails.

Joints in top
plates

9.23.11.7. Joints in the top plates of loadbearing
walls shall be staggered at least 1 stud spacing.

Tying off top
plates at corners

9.23.11.8.(1) The top plates in loadbearing walls
shall be lapped or otherwise suitably tied at corners
and intersecting walls.

(2) Joints in single top plates used with loadbearing
walls shall be suitably tied.

(3) Ties shall be the equivalent of at least 75
mm by 150 mm by 0.91 mm thick galvanized steel nailed
to each wall with at least the equivalent of three 63
mm nails.

SUBSECTION 9.23.12. FRAMING OVER OPENINGS

9.23.12.1. Except as provided in Article 9.23.
12.2., openings in non-loadbearing walls shall be
framed with not less than 38 mm material the same
width as the studs securely nailed to adjacent studs.

Openings for
doors in fire
separations

9.23.12.2. Openings for doors in non-loadbearing
walls required to be fire separations with a
fire-resistance rating shall be framed with the
equivalent of at least two 38 mm thick members that
are the same width as the wall plates.

Lintels

9.23.12.3.(1) Openings in loadbearing walls shall be
framed with lintels designed to carry the
superimposed loads to adjacent studs.

Table 9.23.12.A.
Forming Part of Articles 9.23.12.4. and 9.23.12.5.

WOOD LINTEL SPANS			
Location of Lintels	Supported Loads Including <u>Dead Loads</u> and Ceiling	Depth of Lintels, mm	Maximum Allowable Spans, m
Interior walls	Limited attic storage	89	1.22
		140	1.83
		184	2.44
		235	3.05
		286	3.81
	Full attic storage or roof load or limited attic storage plus 1 floor	89	0.61
		140	0.91
		184	1.22
		235	1.52
		286	1.83
	Full attic storage plus 1 floor or roof load plus 1 floor or limited attic storage plus 2 or 3 floors	89	--
		140	0.76
		184	0.91
		235	1.22
		286	1.52
	Full attic storage plus 2 or 3 floors or roof load plus 2 or 3 floors	89	--
		140	0.61
		184	0.91
		235	1.07
		286	1.22
Exterior walls	Roof with or without attic storage	89	1.12
		140	1.68
		184	2.24
		235	2.79
		286	3.35
	Roof with or without attic storage plus 1 floor	89	0.56
		140	1.40
		184	1.96
		235	2.24
		286	2.51
	Roof with or without attic storage plus 2 or 3 floors	89	0.56
		140	1.12
		184	1.68
		235	1.96
		286	2.24
Column 1	2	3	4

(2) Where 2 or more members are used in lintels, they shall be fastened together with not less than 82 mm nails in a double row, with nails not more than 450 mm apart in each row, except as provided in Article 9.23.12.5.

(3) The lintel members may be separated by filler pieces.

9.23.12.4.(1) In buildings of residential occupancy, where the wall studs exceed 38 mm by 64 mm in size, and where the spans of supported joists do not exceed 4.9 m and the spans of trusses do not exceed 9.8 m, the spans for wood lintels shown in Table 9.23.12.A. may be used.

(2) Such lintels shall consist of a single piece of lumber 89 mm thick or 2 pieces of 38 mm thick lumber on edge.

9.23.12.5.(1) In loadbearing exterior and interior walls of 38 mm by 64 mm framing members, lintels shall consist of solid 64 mm thick members on edge or 38 mm thick and 19 mm thick members securely nailed together.

(2) Such lintels shall be at least 38 mm greater in depth than those shown in Table 9.23.12.A. for the allowable spans, and shall not exceed 2.4 m in length.

SUBSECTION 9.23.13. ROOF AND CEILING FRAMING

Roof and ceiling
framing
member

9.23.13.1. Roof rafters and joists and ceiling joists shall be continuous or shall be spliced over vertical supports that extend to suitable bearing.

Double roof and
ceiling framing
members

9.23.13.2. Roof and ceiling framing members shall be doubled on each side of openings greater than 2 rafter or joist spacings in width.

9.23.13.3. The length of end bearing of joists and rafters shall not be not less than 38 mm.

Location of
rafters

9.23.13.4.(1) Rafters shall be located directly opposite each other and tied together at the peak, or may be offset by their own thickness if nailed to a ridge board not less than 17.5 mm thick.

(2) Framing members shall be connected by gusset plates or nailing at the peak in conformance with Table 9.23.3.A.

(3) Where the roof framing on opposite sides of the peak is assembled separately, such as in the case of

factory built houses, the roof framing on opposite sides may be fastened together with galvanized-steel strips at least 200 mm by 75 mm by 0.41 mm thick spaced not more than 1.2 m apart and nailed at each end to the framing by at least two 63 mm nails.

Slope of rafter
at supports

9.23.13.5. Rafters shall be shaped at supports to provide even bearing surfaces and supported directly above the exterior walls.

Hip and valley
rafters

9.23.13.6. Hip and valley rafters shall be not less than 50 mm greater in depth than the common rafters and not less than 38 mm thick, actual dimension.

Collar ties and
ceiling joists

9.23.13.7.(1) Ceiling joists and collar ties of not less than 38 mm by 89 mm lumber may be assumed to provide intermediate support to reduce the span for rafters and joists where the roof slope is 1 in 3 or greater.

(2) Such collar ties more than 2.4 m in length shall be laterally supported near their centres by not less than 19 mm by 89 mm continuous members at right angles to the collar ties.

Dwarf walls
and struts

9.23.13.8.(1) Dwarf walls and struts may be used to provide intermediate support to reduce the span for rafters and joists.

(2) When struts are used they shall be not less than 38 mm by 89 mm material extending from each rafter to a loadbearing wall at an angle of not less than 45° to the horizontal.

Framing of
dwarf walls

9.23.13.9.(1) When dwarf walls are used for rafter support, they shall be framed in the same manner as loadbearing walls and securely fastened top and bottom to the roof and ceiling framing to prevent over-all movement.

(2) Solid blocking shall be installed between floor joist beneath dwarf walls that enclose finished rooms.

Support of roof
ridges

9.23.13.10.(1) Except as provided in Article 9.23.13.11., the ridge of the roof shall be supported by loadbearing wall extending from the ridge to suitable bearing or by a ridge beam of not less than 38 mm by 140 mm material.

(2) Such ridge beam shall be supported at intervals not exceeding 1.2 m by not less than 38 mm by 89 mm members extending vertically from the ridge to suitable bearing.

Tying of rafter ends or ceiling joists

9.23.13.11.(1) When the roof slope is 1 in 3 or more, ridge support may be omitted provided the lower ends of the rafters are adequately tied to prevent outward movement.

(2) These ties may consist of tie rods or ceiling joists forming a continuous tie for opposing rafters and nailed in accordance with Table 9.23.13.A.

(3) Ceiling joists shall be fastened together with at least 1 more nail per joist splice than required for the rafter to joist connection shown in the Table.

(4) Members may be fastened together either directly or through a gusset plate.

Table 9.23.13.A.
Forming Part of Article 9.23.13.11.

RAFTER-TO-JOIST NAILING (Minimum Number of Nails at least 76 mm long) (Unsupported Ridge)													
Roof Slope	Rafter Spacing, mm	Rafter Tied to Every Joist						Rafter Tied to Joist Every 1.2 m					
		<u>Building</u> Width up to 8 m			<u>Building</u> Width up to 9.8 m			<u>Building</u> Width up to 8 m			<u>Building</u> Width up to 9.8 m		
		Ground Snow Load, kPa											
		1.7 or less	2.5	3.3 or more	1.7 or less	2.5	3.3 or more	1.7 or less	2.5	3.3 or more	1.7 or less	2.5	3.3 or more
1 in 3	400	4	5	6	5	7	8	11	--	--	--	--	--
	600	6	8	9	8	--	--	11	--	--	--	--	--
1 in 2.4	400	4	4	5	5	6	7	7	10	--	9	--	--
	600	5	7	8	7	9	11	7	10	--	--	--	--
1 in 2	400	4	4	4	4	4	5	6	8	9	8	--	--
	600	4	5	6	5	7	8	6	8	9	8	--	--
1 in 1.71	400	4	4	4	4	4	4	5	7	8	7	9	11
	600	4	4	5	5	6	7	5	7	8	7	9	11
1 in 1.33	400	4	4	4	4	4	4	4	5	6	5	6	7
	600	4	4	4	4	4	5	4	5	6	5	6	7
1 in 1	400	4	4	4	4	4	4	4	4	4	4	4	5
	600	4	4	4	4	4	4	4	4	4	4	4	5
Column 1	2	3	4	5	6	7	8	9	10	11	12	13	14

Roof joists

9.23.13.12. Roof joists supporting a finished ceiling, other than plywood or waferboard, shall be

restrained from twisting along the bottom edges by means of furring, blocking, cross bridging or strapping conforming to Article 9.23.9.5.

Ceiling joists

9.23.13.13.(1) Ceiling joists supporting part of the roof load from the rafters shall be not less than 25 mm greater in depth than required for ceiling joists not supporting part of the roof load.

(2) When the roof slope is 1 in 4 or less, the ceiling joist sizes shall be determined from the span tables for roof joists.

Roof trusses

9.23.13.14.(1) Except for roof trusses constructed of Poplar, Eastern White Pine, Western White Pine, Red Pine, Western Red Cedar and Eastern White Cedar, the member sizes for Howe or Fink type wood roof trusses spaced not more than 600 mm o.c. which are to be supported at or near their ends may be determined in conformance with Tables A-12 and A-13 provided such trusses conform to the requirements of Articles 9.23.13.15. and 9.23.13.16.

(2) The joint connections used in such trusses shall be designed in conformance with the requirements in Subsection 4.3.1.

9.23.13.15.(1) Where a roof truss in Article 9.23.13.14. supports a ceiling, and the unsupported length of the bottom chord between the truss panel points exceeds 3.05 m, the bottom chord shall be at least 38 mm by 114 mm in size.

(2) Where the unsupported length of the bottom chord exceeds 3.66 m between the panel points, the bottom chord shall be at least 38 mm by 140 mm in size.

9.23.13.16.(1) Where the length of compression web members in roof trusses in Article 9.23.13.14. exceeds 1.83 m, such web members shall be provided with continuous bracing to prevent buckling.

(2) Such bracing shall consist of not less than 19 mm by 89 mm lumber nailed at right angles to the web members near their centres with at least two 63 mm nails for each member.

(3) Web members shall be at least 38 mm by 89 mm lumber of not less than No. 2 grade.

9.23.13.17.(1) Roof trusses that are not designed in conformance with Article 9.23.13.14. shall be capable of supporting a total ceiling load (dead load plus live load) of 0.5 kPa plus $2 \frac{2}{3}$ the design roof load for 24 h, and shall not exceed the deflections shown

in Table 9.23.13.B. when loaded with the ceiling load plus $1 \frac{1}{3}$ the design roof snow load for 1 h.

(2) Testing for lumber roof trusses shall be in conformance with CSA S307, "Load Test procedure for Wood Roof Trusses for Houses and Small Buildings," except that the unsymmetrical loading requirement in Clause 7.7 of that standard shall not apply.

Table 9.23.13.B.
Forming Part of Article 9.23.13.17.

MAXIMUM ROOF TRUSS DEFLECTIONS		
Truss Span	Type of Ceiling	Maximum Deflection
4.3 m or less	Plaster or gypsum board	1/360 of the span
	Other than plaster or gypsum board	1/180 of the span
over 4.3 m	Plaster or gypsum board	1/360 of the span
	Other than plaster or gypsum board	1/240 of the span
Column 1	2	3

SUBSECTION 9.23.14. SUBFLOORING

Subflooring required

9.23.14.1. Subflooring shall be provided beneath finish flooring where the finish flooring does not have adequate strength to support the design loads.

Plywood for subfloors

9.23.14.2.(1) Plywood for subfloors shall be exterior type conforming to CSA 0121, "Douglas Fir Plywood," CSA 0151, "Canadian Softwood Plywood" or CSA 0153, "Poplar Plywood."

(2) Waferboard subflooring shall conform to CAN3-0188.2, "Waferboard."

9.23.14.3.(1) Particleboard subflooring may be used only where a building is constructed in a factory so that the subfloor will not be exposed to the weather.

(2) Such subflooring shall conform to grade N-1 or N-2 in CAN3-0188.1, "Interior Mat-Formed Wood Particleboard."

(3) Such subflooring shall have its upper surface and all edges treated to restrict water absorption where the subfloor is used in bathrooms, kitchens, laundry rooms or other areas subject to periodic wetting.

9.23.14.4. Where the edges of panel-type subflooring are required to be supported, such support shall consist of tongue-and-groove panel edges or not less than 38 mm by 38 mm blocking securely nailed between framing members.

Installation of
plywood
subflooring

9.23.14.5. Plywood subflooring shall be installed with the surface grain at right angles to the joists and with joints parallel to floor joists staggered.

Subfloor
thickness

9.23.14.6. Except as provided in Article 9.23.14.7., subfloors shall conform to Table 9.23.14.A.

9.23.14.7.(1) Where the finished flooring consists of not less than 19 mm matched wood strip flooring laid at right angles to the joists, subflooring consisting of not less than 12.5 mm thick plywood or 12.7 mm thick waferboard shall be permitted for joists up to 600 mm o.c.

(2) Where a separate panel-type underlay or concrete topping is applied to a subfloor, the subfloor may consist of not less than 12.5 mm thick plywood or 12.7 mm waferboard for joists up to 400 mm o.c.

Table 9.23.14.A.

Forming Part of Article 9.23.14.6. and 9.23.15.6.

THICKNESS OF SUBFLOORING				
Maximum Spacing of Supports, mm	Minimum Plywood Thickness, mm	Minimum Waferboard Thickness, mm	Minimum Particleboard Thickness, mm	Minimum Lumber Thickness, mm
400	15.5	15.9	15.9	17.0
500	15.5	15.9	19.0	19.0
600	18.5	19.0	25.4	19.0
Column 1	2	3	4	5

Nails in
plywood
subflooring

9.23.14.8. When resilient flooring is applied directly to a waferboard, particleboard or plywood subfloor, the subfloor shall be fastened to the supports with annular grooved nails.

Laying angle of
subflooring

9.23.14.9. Lumber subflooring shall be laid at an angle of not less than 45° to the joists. Lumber

subflooring shall be fully supported at the ends on solid bearing. Lumber shall be of uniform thickness and not more than 184 mm wide.

SUBSECTION 9.23.15. ROOF SHEATHING

Plywood and
waferboard
specifications

9.23.15.1. Plywood used for roof Sheathing shall be exterior type plywood conforming to CSA 0121, "Douglas Fir Plywood", CSA 0151, "Canadian Softwood Plywood" or CSA 0153, "Poplar Plywood." Waferboard for roof sheathing shall conform to CAN3-0188.2, "Waferboard."

Application

9.23.15.2. Plywood roof sheathing shall be installed with the surface grain at right angles to the roof framing.

9.23.15.3. Waferboard and plywood roof sheathing shall be installed with at least a 2 mm gap between sheets and with joints parallel to roof joists staggered.

9.23.15.4. Lumber roof sheathing shall not be more than 286 mm wide and shall be applied so that all ends are supported with end joints staggered.

Support of
edges

9.23.15.5.(1) Where panel-type roof sheathing requires edge support, the support shall be not less than 38 mm by 38 mm blocking securely nailed between framing members or metal H clips.

(2) The supports referred to in Sentence (1) are not required when tongued-and-grooved edged plywood is used.

Thickness of
roof sheathing

9.23.15.6.(1) The thickness of roof sheathing on a flat roof used as a walking deck shall conform to the requirements in Table 9.23.14.A. for subfloors.

(2) The thickness of roof sheathing on a roof not used as a walking deck shall conform to Table 9.23.15.A.

9.23.15.7. Asphalt-coated or asphalt-impregnated fibreboard at least 11.1 mm thick conforming to CSA A247, "Insulating Fibreboard" may be used as a roof sheathing over supports spaced not more than 400 mm o.c. provided the roofing consists of a continuous sheet of galvanized steel of at least 0.33 mm in thickness or a continuous sheet of aluminum of at least 0.61 mm in thickness. All edges of such sheathing shall be supported by blocking or framing.

Table 9.23.15.A.
Forming Part of Article 9.23.15.6.

THICKNESS OF ROOF SHEATHING					
Maximum Spacing of Supports, mm	Minimum Plywood Thickness, mm		Minimum Waferboard Thickness, mm		Minimum Lumber Thickness, mm
	Edges Supported	Edges Unsupported	Edges Supported	Edges Unsupported	
300	7.5	7.5	9.5	9.5	17.0
400	7.5	9.5	9.5	11.1	17.0
600	9.5	12.5	11.1	12.7	19.0
Column 1	2	3	4	5	6

SUBSECTION 9.23.16. WALL SHEATHING

Table 9.23.16.A.
Forming Part of Article 9.23.16.2.

WALL SHEATHING THICKNESS AND SPECIFICATIONS			
Type of Sheathing	Minimum Thickness, mm (1)		Material Standards
	With Supports 400 mm o.c.	With Supports 600 mm o.c.	
Lumber	17.5	17.5	See Table 9.3.2.A.
Fibreboard (insulating)	9.5	11.1	CSA A247
Gypsum sheathing	9.5	12.7	CSA A82.27
Plywood (exterior type)	6.0	7.5	CSA 0121
			CSA 0151
			CSA 0153
Waferboard	6.35	7.9	CAN3-0188.2
Expanded polystyrene Types 1 and 2	38	38	CGSB 51-GP-20M
Expanded polystyrene Types 3 and 4	25	25	CGSB 51-GP-20M
Urethane and Isocyanurate Types 1, 2 and 4	38	38	CGSB 51-GP-21M
Urethane and Isocyanurate Type 3	25	25	CGSB 51-GP-21M
Phenolic, faced	25	25	CGSB 51-GP-25M
Column 1	2	3	4

Note to Table 9.23.16.A.:

(1) See also Articles 9.28.5.4. to 9.28.5.6.

Wall sheathing

9.23.16.1. Exterior walls and gable ends shall be sheathed when the exterior cladding requires intermediate fastening between supports or if the exterior cladding requires solid backing.

Wall sheathing thickness and specifications

9.23.16.2. Where wall sheathing is required, it shall conform to Table 9.23.16.A.

9.23.16.3.(1) Gypsum sheathing, rigid insulation and fibreboard shall not be used for the attachment of siding materials.

(2) Nails used in attaching the materials listed in Sentence (1) shall be not less than 3.2 mm diam with a minimum head diameter of 11 mm.

Application of lumber and wall sheathing

9.23.16.4. Lumber wall sheathing shall be applied so that all ends are supported with end joints staggered.

9.23.16.5.(1) Panel-type sheathing board shall be applied so that vertical joints are staggered if the sheathing is applied horizontally.

(2) A gap of not less than 2 mm shall be left between sheets of plywood, waferboard or fibreboard.

9.23.16.6. Where the bottom portions of mansard style roofs are vented, the vertical framing members behind the sloping portions shall be considered on the same basis as exterior wall studs and shall conform to the appropriate requirements in Subsection 9.23.17.

SUBSECTION 9.23.17. WALL SHEATHING PAPER

9.23.17.1. Sheathing paper shall conform to CAN2-51.32, "Sheathing, Membrane, Breather Type."

9.23.17.2. Tar-saturated felts or papers shall not be used as a sheathing paper beneath stucco.

Application

9.23.17.3. Except as provided in Articles 9.23.17.5. and 9.23.17.6., at least 1 layer of sheathing paper shall be applied beneath siding, stucco or masonry veneer.

9.23.17.4. Sheathing paper shall be applied so that joints are lapped at least 100 mm, and if applied horizontally, the upper sheets shall overlap the lower sheets.

Where no sheathing is used

9.23.17.5.(1) Except as provided in Article 9.23.17.6., where no sheathing is used with masonry veneer or other siding, at least 2 layers of

sheathing paper shall be applied beneath the veneer or siding.

(2) All joints in the sheathing paper shall occur over framing, and the paper shall be fastened to the framing with roofing nails or staples spaced not more than 150 mm along the edges of the outer layer of sheathing paper.

(3) Wall sheathing may be used in lieu of 1 layer of sheathing paper, and the thickness need not conform to Table 9.23.16.A.

Where sheathing
paper is not
required

9.23.17.6. Sheathing paper may be omitted beneath siding when the joints in the siding are formed to effectively prevent the passage of wind and rain in conformance with Articles 9.23.17.7. or 9.23.17.8., as applicable.

9.23.17.7.(1) Siding consisting of sheets of plywood, hardboard, waferboard or asbestos cement is considered to meet the requirements of Article 9.23.17.6. provided the siding is applied so that all edges are directly supported by framing and the vertical joints between adjacent sheets covered with battens or shiplapped or otherwise matched to provide weather tight joints.

(2) Vertical joints between sheets shall be caulked.

9.23.17.8. Metal siding consisting of sheets of metal is considered to meet the requirements of Article 9.23.17.6. where the joints between sheets are of the locked seam type.

SUBSECTION 9.23.18. BRACING

9.23.18.1. Except as provided in Article 9.23.18.2., each exterior wall in each storey shall be braced with at least 1 diagonal brace conforming to Article 9.23.18.3.

9.23.18.2. Bracing is not required where walls have an interior finish conforming to the requirements of Section 9.30, or if the walls are clad with panel type siding, diagonal lumber or plywood, waferboard, gypsum or fibreboard sheathing.

9.23.18.3.(1) Where bracing is required, it shall consist of at least 19 mm by 89 mm wood members applied to the studs at an angle of approximately 45° to the horizontal, extending the full height of the wall on each storey.

(2) Such bracing shall be nailed to each stud and wall plate by at least two 63 mm nails.

SECTION 9.24 POST, BEAM AND PLANK CONSTRUCTION

SUBSECTION 9.24.1. GENERAL

Scope

9.24.1.1. This Section applies to wood-frame construction with the loadbearing framing members spaced more than 600 mm apart.

9.24.1.2. The size and spacing of posts and beams and the span and thickness of floor and roof decking shall be calculated in conformance with Subsection 4.3.1. except when specific dimensions are provided in this Subsection.

9.24.1.3. Requirements for nails, lumber, notching and drilling, anchorage and sill plates shall conform to Section 9.23.

Grades of lumber

9.24.1.4. Lumber shall conform to the appropriate requirements in Subsection 9.3.2.

Earthquake loading

9.24.1.5. Buildings of post and beam construction not exceeding 1 storey in building height in velocity-related seismic zones, Z_v , of 4 or greater, not exceeding 2 storeys in building height in velocity-related seismic zones, Z_v , of 2 and 3, and not exceeding 3 storeys in building height in velocity-related seismic zone 1, need not be designed to conform with the earthquake loading provision of Section 4.1.

SUBSECTION 9.24.2. DECKING

Specifications for floor and roof decking

9.24.2.1. Floor and roof decking shall consist of not less than 38 mm lumber laid on the flat or on edge, or exterior type plywood conforming to CSA 0121, "Douglas Fir Plywood," CSA 0151, "Canadian Softwood Plywood," CSA 0153, "Poplar Plywood" or waferboard conforming to CAN3-0188.2, "Waferboard."

Plank floor decking

9.24.2.2. Plank floor decking laid on the flat shall be not more than 200 mm wide. Such decking shall be tongued-and-grooved or splined, unless a separate underlay is installed or the flooring consists of wood strips laid at right angles to the decking.

9.24.2.3.(1) Plywood roof decking that is not tongued-and-grooved shall have edges supported by not less than 38 mm by 89 mm blocking securely nailed between framing members or metal H clips.

(2) Plywood roof decking shall be not less than 12.7 mm thick on supports spaced more than 0.61 m and up to 813 mm o.c., 16 mm thick on supports up to 914 mm o.c., 19 mm thick on supports up to 1080 mm o.c., and 22 mm thick on supports up to 1220 mm o.c.

SUBSECTION 9.24.3. LOADBEARING BEAMS

9.24.3.1. Loadbearing beams shall be solid, built-up, glued-laminated or plywood web beams. Where glued assemblies extend to the exterior, waterproof glue shall be used, except that water-resistant glue may be used where the exposed portion is adequately protected against wetting.

9.24.3.2. Loadbearing roof beams shall be securely connected to the exterior wall framing and the centre loadbearing wall or centre beams to resist adequately the uplift forces due to wind.

9.24.3.3. The length of end bearings for loadbearing beams shall be determined on the basis of the allowable design stress of the wood but shall not be less than 38 mm.

9.24.3.4. When loadbearing beams are supported by mechanical connectors, the connectors shall be capable of supporting the design loads.

9.24.3.5. Where joints in loadbearing beams do not occur over solid supports, joints shall be designed in conformance with Part 4.

9.24.3.6. Opposing loadbearing beams shall be tied together at the joints by means of splices or suitable mechanical connectors.

9.24.3.7. Where secondary framing members span between floor beams, the members and connections shall be designed to support the required design loads.

9.24.3.8. Loads from loadbearing walls, columns or other concentrated loads shall be supported by members designed to carry such loads.

SUBSECTION 9.24.4. POSTS

Posts

9.24.4.1. Posts shall be solid, built-up or laminated.

Exterior
wall posts

9.24.4.2. Where wall sheathing does not provide suitable anchorage, exterior wall posts shall be anchored to the wall plate by not less than 1.19 mm thick steel angles.

Built-up
posts

9.24.4.3.(1) Solid posts and individual members in built-up posts shall extend in one piece the full height of the wall storey.

(2) Built-up members shall be fastened together with nails spaced not more than 300 mm o.c. and at least twice as long as the individual member thickness, or with not less than 9.5 mm diam bolts fitted with washers and spaced not more than 450 mm o.c.

Intermediate
studs

9.24.4.4.(1) Intermediate studs or blocking shall be provided between posts in post and beam walls for the support of exterior and interior cladding.

(2) Intermediate studs shall conform to Section 9.23 for non-loadbearing stud walls.

SUBSECTION 9.24.5. PLANK FRAME WALL CONSTRUCTION

9.24.5.1.(1) Thickness of plank framing in plank frame walls shall conform to Table 9.24.5.A.

(2) The unsupported height of 38 mm vertical plank non-loadbearing walls shall not exceed 3.6 m.

Table 9.24.5.A.

Forming Part of Article 9.24.5.1.

NOMINAL THICKNESS OF PLANK FRAMING	
Supported Load (Including <u>dead load</u> and ceiling)	Minimum Plank Thickness, mm
Roof with or without attic storage	38
Roof with or without attic storage plus 1 floor	38
Roof with or without attic storage plus 2 floors	64
Column 1	2

9.24.5.2. Vertical framing in plank frame walls shall consist of not less than 250 mm wide planks spaced not more than 2.4 m o.c.

9.24.5.3. Vertical framing in plank frame walls shall not bear on wood members with the grain at right angles to the vertical framing, except where bearing on sills.

9.24.5.4. Corners of plank frame walls shall be formed by butting and fastening together the face and edge of 2 planks.

9.24.5.5.(1) Vertical framing in plank frame walls shall be provided on each side of every opening.

(2) A window opening not more than 750 mm in width may be supported on 1 side only by a vertical member. In such cases, the opposite jamb of the window or short upright to which it is attached shall bear on the filler wall plank immediately below, which in turn shall be notched into the vertical structural members on each side.

9.24.5.6. Where horizontal planks act as loadbearing lintels or headers, they shall be framed into the vertical members by dovetailing so that not less than a 40 mm length of bearing is provided.

9.24.5.7. Openings in loadbearing plank frame walls shall be bridged with lintels designed to carry superimposed loads to adjacent vertical members.

9.24.5.8. In buildings of residential occupancy where the spans of supported joists do not exceed 4.9 m and the spans of trusses do not exceed 9.8 m, the spans for wood lintels shown in Table 9.24.5.B. may be used for plank frame walls.

Table 9.24.5.B.
Forming Part of Article 9.24.5.8.

LINTEL SPANS	
Lintel Size, mm	Maximum Span, m
38 by 184	1.55
38 by 235	1.96
38 by 286	2.23
64 by 184	1.96
64 by 235	2.23
Column 1	2

9.24.5.9. Non-loadbearing horizontal members (fillers) in plank frame walls shall be securely fastened to the vertical framing.

9.24.5.10. Sheathing paper for plank frame walls shall be installed over the exterior of the planks when no sheathing is provided, or over the sheathing when sheathing is provided.

9.24.5.11. Sheathing paper shall conform to Section 9.23.

SECTION 9.25 SHEET STEEL STUD WALL FRAMING

SUBSECTION 9.25.1. GENERAL

- Scope** **9.25.1.1.** This Section applies to sheet steel studs for use in non-loadbearing exterior and interior walls.
- 9.25.1.2.** Where loadbearing steel studs are used, they shall be designed in conformance with Part 4.
- Steel stud specifications** **9.25.1.3.** Steel studs and runners shall conform to CGSB 7-GP-1M, "Stud, Framing Member, Light Steel and Furring Channel, Rigid."
- Screws** **9.25.1.4.** Screws for the application of cladding materials to steel studs, runners and furring channels shall conform to ASTM C1002, "Steel Drill Screws for the Application of Gypsum Board."
- 9.25.1.5.** Steel stud framing shall have cladding on both sides, fastened with screws spaced at the appropriate spacing described in Section 9.30, penetrating at least 10 mm through the metal.

SUBSECTION 9.25.2. SIZE OF FRAMING

- Size and spacing** **9.25.2.1.** Except as required in Articles 9.25.2.3. and 9.25.2.4., the size and spacing of steel studs for non-loadbearing interior walls shall conform to Table 9.25.2.A.

Table 9.25.2.A.
Forming Part of Article 9.25.2.1.

STEEL STUDS FOR NON-LOADBEARING INTERIOR WALLS		
Minimum Stud Size, mm	Maximum Stud Spacing, mm	Maximum Wall Height, m
31 x 40	400	3.0
	600	2.7
31 x 63	400	4.0
	600	3.6
31 x 91	400	5.2
	600	4.9
Column 1	2	3

Metal
thickness

9.25.2.2. Except as required in Article 9.25.2.4., steel studs in non-loadbearing interior walls shall have a metal thickness of not less than 0.50 mm.

9.25.2.3. Runners for interior and exterior non-loadbearing walls shall have a thickness of at least 0.45 mm exclusive of coatings and shall have at least 25 mm flanges.

Framing around
doors in fire
separations

9.25.2.4.(1) Where openings for doors in non-loadbearing fire separations required to have a fire-resistance rating do not exceed 1 200 mm in width, the width of steel studs shall be at least 63 mm, and have a metal thickness of at least 0.50 mm.

(2) Where openings exceed 1 200 mm in width, the stud width shall be at least 91 mm, and shall have a metal thickness of at least 0.85 mm.

9.25.2.5.(1) The distance to the first stud beyond the jamb of any door opening in a fire separation required to have a fire-resistance rating shall not exceed 400 mm.

(2) Where the distance between the framing over the opening and the top runner exceeds 400 mm in such walls, intermediate support shall be installed at intervals of not more than 400 mm above the opening.

9.25.2.6. The size and spacing of non-loadbearing steel studs for exterior walls shall conform to Table 9.25.2.B.

Table 9.25.2.B.
Forming Part of Article 9.25.2.6.

STEEL STUDS FOR NON-LOADBEARING EXTERIOR WALLS				
Minimum Stud Size, mm	Minimum Metal Thickness, mm (excluding coating)	Maximum Stud Length, m Spacing of Studs		
		300 mm (o.c.)	400 mm (o.c.)	600 mm (o.c.)
31 x 91	0.53	3.0	2.4	--
31 x 91	0.69	3.3	2.7	2.4
31 x 91	0.85	3.6	3.0	2.7
31 x 91	1.0	4.0	3.3	3.0
Column 1	2	3	4	5

SUBSECTION 9.25.3. INSTALLATION

9.25.3.1.(1) Runners shall be provided at the tops and bottoms of walls.

(2) Such runners shall be securely attached to the building at approximately 50 mm from the ends, and at intervals of not more than 600 mm o.c. for interior walls and 300 mm o.c. for exterior walls.

(3) Such fasteners shall consist of the equivalent of 63 mm nails or 25 mm screws.

9.25.3.2. Studs at openings and which are not full wall height shall be supported by a runner at the ends of the studs, securely fastened to the full length studs at the sides of the opening.

9.25.3.3.(1) Steel studs used in walls required to have a fire-resistance rating shall be installed so that there is at least a 12 mm clearance between the top of the stud and the top of the runner to allow for expansion in the event of fire.

(2) Except as provided in Article 9.25.3.8., studs in such walls shall not be attached to the runners in a manner that will prevent such expansion.

Framing doors
in fire
separations

9.25.3.4.(1) Framing above doors with steel door frames in non-loadbearing fire separations required to have a fire-resistance rating shall consist of 2 runners the flat fastened back to back. The upper runner shall be bent at each end to extend upwards at least 150 mm and fastened to the adjacent studs.

(2) A gypsum board filler piece, the width and length of the runner, shall be provided between the door frame and the adjacent runner.

9.25.3.5. Steel studs shall be installed with webs at right angles to the wall face and, except at openings, shall be continuous for the full wall height

9.25.3.6. Corners and intersections of walls shall be constructed to provide support for the cladding materials.

9.25.3.7.(1) Studs shall be doubled on each side of every opening where such openings involve more than 1 stud space, and shall be tripled where the openings in exterior walls exceed 2.4 m in width.

(2) Such studs shall be suitably fastened together to act as a single structural unit in resisting transverse loads.

9.25.3.8. Studs shall be attached to runners by screws, crimping, welding or other suitable method

around wall openings, and elsewhere where necessary to keep the studs in alignment during construction.

Openings for
fire dampers

9.25.3.9. Openings for a fire dampers in non-loadbearing fire separations required to have a fire-resistance rating shall be framed with double studs on each side of the opening. The sill and header shall consist of a runner track with right angle bends made on each end so as to extend 300 mm above the header or below the sill and fastened to the studs. The openings so formed shall be lined with a layer of gypsum board at least 12.7 mm thick fastened to stud and runner webs.

SECTION 9.26 THERMAL INSULATION AND VAPOUR BARRIERS

SUBSECTION 9.26.1. SCOPE

9.26.1.1. This Section applies to the thermal insulation of buildings of residential occupancy intended for use on a continuing basis during the winter months.

9.26.1.2. The requirements for thermal insulation in this Section need not be met where thermal design is provided in accordance with Section 9.39.

SUBSECTION 9.26.2. GENERAL

Prevention of
moisture
condensation

9.26.2.1. Buildings of residential occupancy shall be provided with sufficient thermal insulation to prevent moisture condensation on the interior surfaces of walls, ceilings and floors during the winter and to ensure comfortable conditions for the occupants.

9.26.2.2. Insulation of heating and ventilating ducts shall conform to Sections 9.33 and 9.34.

9.26.2.3. Insulation shall be provided between heated and unheated spaces and between heated spaces and the exterior, and around the perimeter of concrete slabs-on-ground.

9.26.2.4. Reflective surfaces of insulating materials shall not be considered in calculating the thermal resistance of building assemblies.

9.26.2.5. Insulation around concrete slabs-on-ground shall extend not less than 600 mm below exterior ground level.

9.26.2.6.(1) Except for doors, windows, skylights and other openings the thermal resistance of insulation shall conform to Table 9.26.2.A.

(2) Every foundation wall face having more than 50 per cent of its area exposed to outside air and those parts of foundation walls made of wood-frame construction above exterior ground level shall have a thermal resistance rating conforming to the requirements for exposed walls in Table 9.26.2.A.

Table 9.26.2.A.
Forming Part of Sentence 9.26.2.6.(1)

MINIMUM THERMAL RESISTANCE OF INSULATION TO BE INSTALLED FOR ALL DEGREE DAY ZONES	
Construction	RSI Value Required
Exposed ceiling	5.40
Exposed roof	3.52
Exposed walls	2.11
Foundation walls	
- Solid	1.41 ⁽⁶⁾
- Frame	2.11
Exposed floors	4.40
Slabs on ground at grade	
- unheated	1.41
- heated	1.76
Column 1	2

Notes to Table 9.26.2.A.:

- (1) "Exposed" means exposed to outdoor temperature or unheated area.
- (2) "Solid" means brick, concrete block or concrete.
- (3) "Frame" means a wood or steel stud frame to which interior and exterior cladding is applied.
- (4) "RSI value" shown for slabs on ground at grade is for rigid insulation. See Article 9.26.3.2.
- (5) Slabs on ground at grade.
 - "heated" means a concrete floor containing heating ducts or pipes.
 - "unheated" means a concrete floor not containing heating ducts or pipes.
- (6) - See Article 9.26.2.6.(3)

(3) The thermal resistance values in Table 9.26.2.A. for exposed roofs or ceilings may be reduced near eaves to the extent made necessary by the roof slope and required ventilation clearances, except that the

thermal resistance of insulation at the location directly above the inner surface of the exterior wall shall be at least RSI 2.1.

9.26.2.7.(1) Log wall construction and post, beam and plank construction shall have a minimum thermal resistance of RSI-2.1 for the total assembly, except that existing previously inhabited log houses that are dismantled and reconstructed are exempt from this requirement.

(2) The thermal resistance value in Sentence (2) for the total wall assembly may be reduced to not less than RSI 1.61, provided that

(a) the thermal resistance of insulation for exposed roof or ceiling required in Table 9.26.2.A. shall be increased by an amount equivalent to the reduction permitted in this Sentence, and

(b) for log walls, the logs are machined squared having tongue and groove or splined joints.

SUBSECTION 9.26.3. MATERIALS

Insulation
materials

9.26.3.1. Insulation in contact with the ground shall be inert to the action of soil and water. The insulation properties shall not be significantly reduced by moisture.

9.26.3.2. Type 1 expanded polystyrene insulation as described in CGSB 51-GP-20M, "Thermal Insulation, Expanded Polystyrene" shall not be used in contact with the ground or as roof insulation applied above the roofing membrane.

Specifications

9.26.3.3. Insulating materials shall conform to the following standards, except that the flame-spread ratings contained in these standards shall not apply:

CSA A101, "Thermal Insulation, Mineral Fibre, for Buildings,"

CSA A247, "Insulating Fibreboard,"

CGSB 51-GP-20M, "Thermal Insulation, Expanded Polystyrene,"

CGSB 51-GP-21M, "Thermal Insulation, Urethane and Isocyanurate, Unfaced,"

CGSB 51-GP-25M, "Thermal Insulation, Phenolic, Faced,"

CGSB 51-GP-27M, "Thermal Insulation, Polystyrene, Loose Fill," or

CGSB 51-GP-60M, "Thermal Insulation, Cellulose Fibre, Loose Fill."

Vapour barriers

9.26.3.4. Vapour barriers shall conform to CAN2-51.33, "Vapor Barrier: Sheet, for Use in Building Construction." Type 1 vapour barriers shall be used where a high resistance to vapour movement is required, such as in wall constructions that incorporate exterior cladding or sheathing having a low water vapour permeance. Type 2 vapour barriers may be used in all other locations.

Roofs with no attic spaces

9.26.3.5. Where insulation is placed below the roof sheathing, and the roof slope is less than 1 in 6, or the roof incorporates no attic space, the insulation shall be protected by a Type 1 vapour barrier.

SUBSECTION 9.26.4. INSTALLATION OF INSULATION

Installation of insulation

9.26.4.1. Insulation shall be installed so that there is a reasonably uniform insulating value over the entire face of the insulated area.

Application of insulation

9.26.4.2. Insulation shall be applied to the full width and length of the space between furring or framing.

Batt-type insulation

9.26.4.3. Batt-type insulation manufactured with no membrane on either face shall be installed so that at least 1 face is in full and continuous contact with cladding, sheathing or other membrane.

Loose-fill insulation

9.26.4.4. Except as provided in Articles 9.26.4.5. and 9.26.4.6., loose-fill insulation shall be used on horizontal surfaces only.

9.26.4.5. Water repellent loose-fill insulation may be used between the outer and inner wythes of masonry cavity walls.

9.26.4.6. Loose-fill insulation may be used in wood frame walls of existing buildings.

9.26.4.7. Where soffit venting is used, measures shall be taken to prevent loose-fill insulation from spilling over the top of the exterior wall and causing blockage of the soffit vents.

Insulation of foundation wall enclosing crawl space

9.26.4.8. Insulation on the interior of foundation walls enclosing a crawl space shall be applied so that there is not less than a 50 mm clearance above the crawl space floor if the insulation is of a type that may be damaged by water

9.26.4.9. Insulation around concrete slabs-on-ground shall be located so that heat from the building is not restricted from reaching the ground beneath the

perimeter where exterior walls are not supported by footings extending below frost level.

9.26.4.10. Where insulation is exposed to the weather and subject to mechanical damage, it shall be protected with not less than 6 mm asbestos-cement board, or 12 mm cement parging on wire lath applied to the exposed face and edge.

Protection of
insulation

9.26.4.11.(1) Insulation and vapour barrier in a dwelling unit shall be protected from mechanical damage by a covering of gypsum board, plywood, particleboard, waferboard or hardboard.

(2) Notwithstanding Sentence (1), in unfinished cellars and basements, mineral fibre insulation need not be protected by a finish material provided it is covered with polyethylene vapour barrier of at least 0.15 mm in thickness.

(3) Foamed plastics shall be protected as described in Article 9.10.16.12.

9.26.4.12. Insulation in factory-built buildings shall be installed so that it will not become dislodged during transportation.

9.26.4.13.(1) The upper part of foundation walls enclosing heated space shall be insulated from the underside of the subfloor to not less than 600 mm below the finished ground level.

(2) If a foundation wall is constructed of hollow masonry units, one or more of the following shall be used to control convection currents in the core spaces,

(a) filling the core spaces,

(b) at least one row of semi-solid blocks at or below grade, or

(c) other similar methods.

9.26.4.14.(1) Insulation for the below-grade portion of the interior of foundation walls shall be protected from moisture by a moisture barrier, or the insulation is to be inherently moisture resistant and batt-type insulation shall be additionally protected by a vapour barrier.

(2) Insulation on the inside of such foundation walls shall be installed tightly against the foundation wall and shall be sealed at the top and at the bottom to reduce air circulation.

**SUBSECTION 9.26.5. MEASURES TO PREVENT
CONDENSATION**

**Installation of
vapour barriers**

9.26.5.1. Except as provided in Article 9.26.5.2., vapour barriers shall be installed on the warm side of insulation if the insulation is of a type which, when installed, has a vapour permence greater than that required for vapour barriers in Article 9.26.3.4.

**Lightweight
cellular
plastic-type
insulation**

9.26.5.2. Lightweight cellular plastic-type insulation may be used without additional vapour barrier protection provided such insulation has a permence rating of not more than 230 ng/Pa.s.m^2 and is installed in continuous contact with masonry or concrete walls.

9.26.5.3. Every vapour barrier shall be installed to protect the entire insulated wall surface, except that the vapour barrier need not extend across the framing members provided the interior finish consists of panel-type material attached to all framing members with a continuous bead of adhesive in addition to the nails or staples required elsewhere in Section 9.30.

9.26.5.4. Insulation shall be protected by a vapour barrier installed so that all joints are lapped at least 100 mm.

9.26.5.5. Where an interior frame wall meets an exterior wall required to have vapour barrier protection, the vapour barrier protection shall extend between the exterior and interior walls to form continuous protection at the wall intersection.

9.26.5.6. Where an interior frame wall meets a ceiling required to have vapour barrier protection, the vapour barrier protection shall extend over the top of the wall or beneath the top wall plate to form continuous vapour protection for the ceiling.

Openings

9.26.5.7. Holes through vapour barriers, such as those cut for the installation of electrical wiring, electrical boxes, piping or ductwork, shall be sealed to maintain the integrity of the vapour barrier over the entire surface.

Access hatches

9.26.5.8. Access hatches into attics shall be weather stripped around the perimeters of the hatches.

**Prevention of
leakage**

9.26.5.9. Ductwork in attic or roof spaces shall have all joints taped or be otherwise sealed to

ensure that the ducts are airtight throughout their length.

9.26.5.10. Clearances between chimneys or gas vents and the surrounding construction which would permit air leakage from within the building into an attic or roof space shall be sealed by noncombustible material to prevent such leakage.

9.26.5.11. Masonry walls of hollow units which penetrate through the ceiling shall be capped with masonry units without voids or be sealed with flashing material extending across the full width of the masonry at or near the ceiling adjacent to the roof space to prevent moisture within the voids from entering the attic or roof space.

SECTION 9.27 ROOFING

SUBSECTION 9.27.1. GENERAL

Roof protection

9.27.1.1. Roofs shall be protected with roofing, including flashing, installed to shed rain effectively and prevent water due to ice damming from entering the roof.

SUBSECTION 9.27.2. ROOFING MATERIALS

Materials
specification

9.27.2.1. Roofing materials shall conform to the following:

CAN2-51.32, "Sheathing, Membrane, Breather Type,"
CGSB 37-GP-4Ma, "Cement, Lap, Cutback Asphalt, Fibrated, for Asphalt Roofing,"
CGSB 37-GP-5Ma, "Cement, Plastic, Cutback Asphalt,"
CGSB 37-GP-8Ma, "Asphalt, Cutback, Filled, for Roof Coating,"
CGSB 37-GP-9Ma, "Primer, Asphalt for Asphalt Roofing, Dampproofing and Waterproofing,"
CGSB 37-GP-21M, "Tar, Cutback, Fibrated, for Roof Coating,"
CGSB 41-GP-6M, "Sheets, Thermosetting Polyester Plastics, Glass Fiber Reinforced,"
CSA A123.1, "Asphalt Shingles Surfaced with Mineral Granules,"
CSA A123.2, "Asphalt Coated Roofing Sheets,"
CSA A123.3, "Asphalt or Tar Saturated Roofing Felt,"
CSA A123.4, "Bitumen for Use in Construction of Built-Up Roof Coverings and Dampproofing and Waterproofing Systems,"
CSA A123.17, "Asphalt-Saturated Felted Glass-Fibre Mat for Use in Construction of Built-Up Roofs," or

CSA 0118.1, "Western Red Cedar Shingles,
Handsplit Western Red Cedar Shakes, and
Machine-Grooved Shakes."

Roofing nails

9.27.2.2.(1) Nails used for roofing shall be corrosion-resistant roofing or shingle nails conforming to CSA B111, "Wire Nails, Spikes and Staples."

(2) Nails shall have sufficient length to penetrate through or 12 mm into roof sheathing.

(3) Nails used with asphalt roofing shall have a head diameter of not less than 9.5 mm and a shank thickness of not less than 2.95 mm.

(4) Nails used with wood shingles or shakes shall have a head diameter of not less than 4.8 mm and a shank thickness of not less than 2.0 mm and shall be stainless steel, aluminum or hot-dipped galvanized.

9.27.2.3.(1) Staples used to apply asphalt or wood shingles shall be corrosion-resistant and shall be driven with the crown parallel to the eaves.

(2) Staples used with asphalt shingles shall be not less than 19 mm long, 1.6 mm diam or thickness, with not less than a 25 mm crown, except that an 11 mm crown may be used if the number of staples specified in Article 9.27.7.4. is increased by 1/3.

(3) Staples used with wood shingles shall be not less than 29 mm long, 1.6 mm diam or thickness, with not less than a 9.5 mm crown and shall be stainless steel or aluminum.

SUBSECTION 9.27.3. ROOF SLOPE

Table 9.27.3.A.

Forming Part of Article 9.27.3. 1.

ROOFING TYPES AND SLOPE LIMITS OF ROOFS		
Type of Roofing	Minimum Slope	Maximum Slope
Built-up Roofing		
Asphalt base (gravelled)	1 in 50 (1)	1 in 4
Asphalt base (without gravel)	1 in 25	1 in 2
Asphalt base (surfaced with wide selvage asphalt roofing)	1 in 6	no limit
Coal-tar base (gravelled)	1 in 50 (1)	1 in 25
Cold process	1 in 25	1 in 1.33
Column 1	2	3

Table 9.27.3.A. (Cont'd)

ROOFING TYPES AND SLOPE LIMITS OF ROOFS		
Type of Roofing	Minimum Slope	Maximum Slope
Asphalt Shingles		
Normal application	1 in 3	no limit
Low slope application	1 in 6	no limit
Roll Roofing		
Smooth and mineral surfaced	1 in 4	no limit
480 mm wide selvage asphalt roofing	1 in 6	no limit
Cold application felt	1 in 50	1 in 1.33
Wood Shingles	1 in 4	no limit
Handsplit Shakes	1 in 3	no limit
Asbestos-Cement Corrugated Sheets	1 in 4	no limit
Corrugated Metal Roofing	1 in 4	no limit
Sheet Metal Shingles	1 in 4	no limit
Slate Shingles	1 in 2	no limit
Clay Tile	1 in 2	no limit
Glass Fibre Reinforced Polyester Roofing Panels	1 in 4	no limit
Column 1	2	3

Note to Table 9.27.3.A.:

(1) See Article 9.27.3.2.

Roof slopes

9.27.3.1. Except as provided in Article 9.27.3.2., the roof slopes on which roof coverings may be applied shall conform to Table 9.27.3.A.

9.27.3.2. Asphalt and gravel or coal tar and gravel roofs may be constructed with lower slopes than required in Article 9.27.3. 1. when effective drainage is provided by roof drains located at the lowest points on the roofs.

SUBSECTION 9.27.4. FLASHING AT INTERSECTIONS

9.27.4.1. Sheet metal flashing shall consist of not less than 1.73 mm thick sheet lead, 0.33 mm thick galvanized steel, 0.46 mm thick copper, 0.46 mm thick zinc or 0.48 mm thick aluminum.

Valley flashing

9.27.4.2.(1) Where sloping surfaces of shingled roofs intersect to form a valley, the valley shall be flashed.

(2) Closed valleys shall not be used with rigid shingles on slopes of less than 1 in 1.2.

(3) Closed valley flashing shall consist of sheet metal, self sealing composite membranes consisting of polyethylene and bituminous material or one layer of either Type S smooth surface roll roofing or Type M mineral surface roll roofing (mineral surface down) not less than 600 mm wide, and nails shall not penetrate the flashing within 75 mm of its edge or 125 mm of the bottom of the valley centerline.

Open valley flashing

9.27.4.3.(1) Open valleys shall be flashed with not less than 1 layer of sheet metal not less than 600 mm wide, or 2 layers of roll roofing.

(2) The bottom layer shall consist of not less than Type S smooth roll roofing or Type M mineral surface roll roofing (mineral surface down) not less than 457 mm wide, centred in the valley and fastened with nails spaced not more than 450 mm o.c. located 25 mm away from the edges.

(3) The top layer shall consist of not less than Type M mineral surface roll roofing (mineral surface up), 914 mm wide, centred in the valley, applied over a 100 mm wide strip of cement along each edge of the bottom layer, and fastened with a sufficient number of nails to hold it in place until the shingles are applied.

Intersection flashing

9.27.4.4.(1) The intersection of shingle roofs and masonry walls or chimneys shall be protected with flashing.

(2) Counter flashing embedded not less than 25 mm in the masonry shall extend not less than 150 mm down the masonry and lap the lower flashing not less than 100 mm.

(3) Flashing along the slopes of a roof shall be stepped so that there is not less than a 75 mm head lap in both the lower flashing and counter flashing.

(4) Where the roof slopes upwards from the masonry, the flashing shall extend up the roof slope to a point equal in height to the flashing on the masonry, but not less than 1 1/2 times the shingle exposure.

9.27.4.5.(1) The intersection of shingle roofs and walls clad with other than masonry shall be protected with flashing.

(2) Flashing shall be installed so that it extends up the wall not less than 75 mm behind the sheathing paper, and extends not less than 75 mm horizontally.

(3) Along the slope of the roof, the flashing shall be stepped with not less than a 75 mm head lap.

9.27.4.6.(1) The intersection of built-up roofs with masonry walls or chimneys shall have a cant strip at the intersection.

(2) A roofing membrane shall be mopped over the cant strip and not less than 150 mm up the wall.

(3) Counter flashing installed over the intersection shall be embedded not less than 25 mm in the masonry, and shall be of sufficient length to extend down not less than 150 mm, lapping the membrane on the masonry not less than 100 mm.

9.27.4.7.(1) The intersection of built-up roofs with walls clad with other than masonry shall have a cant strip at the intersection.

(2) The roofing membrane shall be mopped over the cant strip.

(3) Flashing plies shall extend not less than 150 mm up the wall behind the sheathing paper.

Requirements and
installation of
chimney saddle

9.27.4.8.(1) Except as otherwise permitted in Article 9.27.4.9., chimney saddles shall be installed where the upper side of a chimney on a sloping roof is more than 750 mm wide.

(2) Chimney saddles shall be covered with sheet metal or roofing material of equivalent weight and quality as the roofing.

(3) Saddles shall be suitably flashed where they intersect the roof.

(4) The intersection of the saddle and the chimney shall be flashed and counterflashed as in Article 9.27.4.4.

9.27.4.9.(1) A chimney saddle need not be installed if the intersection between the chimney and roof is protected by sheet metal flashing that extends up the chimney to a height equal to not less than 1/6 the width of the chimney, but not less than 150 mm, and up the roof slope to a point equal in height to the flashing on the chimney, but not less than 1 1/2 times the shingle exposure.

(2) Such flashing at the chimney shall be counterflashed as required by Article 9.27.4.4.

SUBSECTION 9.27.5. EAVE PROTECTION FOR SHINGLES AND SHAKES

Required eave
protection

9.27.5.1. Except as provided in Article 9.27.5.3., eave protection shall be provided on shingle, shake or tile roofs, extending from the edge of the roof a minimum distance of not less than 750 mm inside the inner face of the exterior wall.

9.27.5.2.(1) Eave protection shall be laid beneath the starter strip and shall consist of

- (a) No. 15 asphalt-saturated felt laid in two plies lapped 480 mm and cemented together with lap cement,
- (b) self-sealing composite membranes consisting of polyethylene and bituminous material, or
- (c) Type S smooth surface roll roofing.

(2) Roll roofing shall be laid with not less than 100 mm head and end laps cemented together with lap cement.

Eave protection
not required

9.27.5.3. Eave protection is not required over unheated garages, carports and porches, or where the roof overhang exceeds 900 mm measured along the roof slope from the edge of the roof to the inner face of the exterior wall, or where shingles for low slope roofs are used.

SUBSECTION 9.27.6. UNDERLAY BENEATH SHINGLES

Weight of
underlay

9.27.6.1. When underlay is used beneath shingles, it shall be asphalt-saturated sheathing paper weighing not less than 0.195 kg/m^2 or No. 15 plain or perforated asphalt-saturated felt or 0.05 mm polyethylene, except that underlayment used beneath wood shingles shall be breather type.

Installation of
underlay

9.27.6.2.(1) When used with shingles, underlay shall be installed parallel to the eaves with head and end lap of not less than 50 mm.

(2) The top edge of each strip shall be fastened with sufficient roofing nails to hold it in place until the shingles are applied.

(3) The underlay shall overlap the eave protection by not less than 100 mm.

**SUBSECTION 9.27.7. ASPHALT SHINGLES ON SLOPES OF 1
IN 3 OR GREATER**

Coverage	9.27.7.1. Coverage shall be not less than 2 thicknesses of shingle over the entire roof, disregarding cutouts.
Starter strip	9.27.7.2.(1) A starter strip shall be installed along the lower edge of the roof so that it extends approximately 12 mm beyond the eaves and rake of the roof and fastened along the bottom edge with nails spaced not more than 300 mm o.c. (2) Starter strips shall be not less than Type M mineral-surfaced roll roofing not less than 304 mm wide, or shingles of the same weight and quality as those used as a roof covering with tabs facing up the roof slope. (3) Starter strips may be omitted where eave protection of not less than Type M mineral-surfaced roll roofing or self-sealing composite membranes consisting of polyethylene and bituminous material is provided.
Minimum head lap	9.27.7.3. Shingles shall have a head lap of not less than 50 mm.
Fastening	9.27.7.4.(1) Shingles shall be fastened with at least 4 nails or staples for 1 m wide shingles so that no nails or staples are exposed. (2) Fasteners may be reduced for narrower shingles in proportion to the width of the shingle or when shingles incorporating interlocking devices are used.
Location of fasteners	9.27.7.5.(1) Fasteners shall be located 25 mm to 40 mm from each end of each strip shingle with the other fasteners equally spaced between them. (2) Such fasteners shall be located not less than 12 mm above the tops of the cutouts.
Shingle tabs fastening	9.27.7.6. Shingle tabs shall be secured by a spot of plastic cement not exceeding 25 mm diam under the centre of each tab or by interlocking devices or self-sealing strips.
Shingle application on hips and ridges	9.27.7.7.(1) Shingles on hips and ridges shall be applied so they extend not less than 100 mm on either side of the hip or ridge, and shall be lapped not less than 150 mm.

(2) Shingles shall be fastened with nails or staples on each side located not more than 25 mm from the edge and 25 mm above the butt of the overlying shingle.

Eave protection

9.27.7.8. Eave protection shall conform to Subsection 9.27.5.

Flashing

9.27.7.9. Flashing shall conform to Subsection 9.27.4.

SUBSECTION 9.27.8. ASPHALT SHINGLES ON SLOPES OF LESS THAN 1 IN 3

Coverage

9.27.8.1. Except for the first 2 courses, coverage shall be not less than 3 thicknesses of shingle over the entire roof, disregarding cutouts.

Starter strip

9.27.8.2. A starter strip shall be installed as in Article 9.27.7.2. Such starter strip shall be laid in a continuous band of cement not less than 200 mm wide.

Tabs fastening

9.27.8.3. Shingle tabs shall be secured with cold application cement applied at the rate of not less than 0.5 L/m^2 of cemented area, or hot application asphalt applied at the rate of 1 kg/m^2 of cemented area.

9.27.8.4. The first course of shingles shall be secured by a continuous band of cement along the eaves applied so that the width of the band equals the shingle exposure plus 100 mm and the band is located not less than 50 mm above the lower edge of the starter strip.

Succeeding courses of shingles

9.27.8.5.(1) The succeeding courses of shingles shall be secured by a continuous band of cement applied so that the width of the band equals the shingle exposure plus 50 mm.

(2) Such band shall be located not less than 25 mm nor more than 50 mm above the butt of the overlying course of shingles.

Shingle application on hips and ridges

9.27.8.6.(1) Shingles on hips and ridges shall be not less than 300 mm wide applied to provide triple coverage.

(2) Such shingles shall be cemented to the roof shingles and to each other with a coat of cement 25 mm from the edges of the shingles and fastened with nails or staples located 40 mm above the butt of the overlying shingle and 50 mm from each edge.

Flashing	9.27.8.7. Flashing shall conform to Subsection 9.27.4.
Fastening	9.27.8.8. Shingles shall be fastened in accordance with Articles 9.27.7.4. and 9.27.7.5.
SUBSECTION 9.27.9. WOOD ROOF SHINGLES	
Decking	9.27.9.1. Decking for wood shingled roofs may be continuous or spaced.
	9.27.9.2. Where underlayment is used beneath wood shingles it shall be the breather type.
Grade	9.27.9.3. Shingles shall be not less than No. 2 grade.
Size	9.27.9.4. Wood shingles shall be not less than 400 mm long and not less than 75 mm nor more than 350 mm wide.
Spacing	9.27.9.5. Shingles shall be spaced approximately 6 mm apart and offset at the joints in adjacent courses not less than 38 mm so that joints in alternate courses are staggered.
Fastening	9.27.9.6. Shingles shall be fastened with at least 2 nails or staples located approximately 19 mm from the sides of the shingle and 38 mm above the exposure line.
Exposure	9.27.9.7. The exposure of wood roof shingles shall conform to Table 9.27.9.A.

Table 9.27.9.A.
Forming Part of Article 9.27.9.7.

EXPOSURE OF WOOD ROOF SHINGLES						
Roof Slope	Maximum Shingle Exposure, mm					
	No. 1 Grade Length of Shingle			No. 2 Grade Length of Shingle		
	400 mm	450 mm	600 mm	400 mm	450 mm	600 mm
1 in 3 or less	95	105	145	90	100	140
over 1 in 3	125	140	190	100	115	165
Column 1	2	3	4	5	6	7

Flashing	9.27.9.8. Flashing shall conform to Subsection 9.27.4.
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Eave protection

9.27.9.9. Eave protection shall conform to Subsection 9.27.5.

SUBSECTION 9.27.10. HANDSPLIT ROOF SHAKES

Size of shakes

9.27.10.1. Shakes shall be not less than 450 mm long and not less than 100 mm nor more than 350 mm wide with a butt thickness of not more than 32 mm and not less than 9 mm.

Underlay

9.27.10.2. A breather-type underlay shall be provided beneath roof shakes. Underlay shall be laid as a strip not less than 900 mm wide along eaves and 300 mm wide along hips and ridges. Underlay shall be laid as a strip not less than 450 mm wide between each course of shakes with the bottom edge of the underlay positioned above the butt line, a distance equal to double the exposure of the shakes.

Spacing of shakes

9.27.10.3. Shakes shall be spaced approximately 6 mm apart and offset at the joints in adjacent courses not less than 40 mm so that joints in alternate courses are staggered.

Fastening of shakes

9.27.10.4. Shakes shall be fastened with nails located approximately 20 mm from the sides of the shakes and 40 mm above the exposure line.

9.27.10.5. The exposure of wood shakes shall not exceed 190 mm for shakes at least 450 mm long and 250 mm for shakes at least 600 mm long.

Flashing

9.27.10.6. Flashing shall conform to Subsection 9.27.4.

Eave protection

9.27.10.7. Eave protection shall conform to Subsection 9.27.5.

SUBSECTION 9.27.11. BUILT-UP ROOFS

Built-up roof construction

9.27.11.1. The quantities of bituminous materials used on built-up roofs shall conform to Table 9.27.11.A.

9.27.11.2. Coal-tar products and asphalt products shall not be used together in built-up roof construction.

Roofing felts

9.27.11.3. Bitumen roofing felts shall be not less than No. 15 felt.

9.27.11.4. Aggregate used for surfacing built-up roofs shall be clean, dry and durable and shall consist of particles of gravel, crushed stone or air-cooled blast furnace slag having a size of from 6 mm to 15 mm.

Table 9.27.11.A.
Forming Part of Article 9.27.11.1.

QUANTITIES OF BITUMEN FOR BUILT-UP ROOFS		
Type of Roof	Amount of Bitumen per Square Metre of Roof Surface	
	Mopping Coats Between Layers	Flood Coat
Asphalt and aggregate	1 kg	3 kg
Coal-tar and aggregate	1.2 kg	3.6 kg
Cold process roofing	0.75 L cold process cement	2 L cold process top coating
Column 1	2	3

Flashing

9.27.11.5. Flashing shall conform to Subsection 9.27.4.

9.27.11.6. The minimum amount of aggregate surfacing per square metre of roof surface shall be 15 kg gravel or crushed stone or 10 kg crushed slag.

9.27.11.7. Built-up roofing shall consist of at least 3 mopped-down layers of roofing felt flood coated with bitumen.

9.27.11.8.(1) In hot process applications each layer of bitumen-saturated felt shall be laid while the bitumen is hot, with each layer overlapping the previous one.

(2) The full width under each lap shall be coated with bitumen so that in no place does felt touch felt.

(3) Felt shall be laid free of wrinkles and shall be rolled directly into the hot bitumen and broomed forward and outward from the centre to ensure complete adhesion.

9.27.11.9. Except as permitted in Article 9.27.11.10., built-up roofing applied over wood, plywood or waferboard roof sheathing shall be laid over an additional base layer of felt laid dry over the entire roof deck with at least a 50 mm headlap and a 50 mm sidelap between each sheet.

9.27.11.10. Where plywood or waferboard roof sheathing is used, the dry layer of felt required in

Article 9.27.11.9. may be omitted when the joints are taped and the sheathing is primed with asphalt.

9.27.11.11. Roofing shall be securely attached to the decking or where insulation is applied above the deck, the insulation shall be securely attached to the deck before the first layer of felt is fastened to the insulation.

9.27.11.12.(1) A cant strip shall be provided at the edges of roofs, except as permitted in Article 9.27.11.13.

(2) At least 2 plies of the roofing membrane shall be carried over the top of the cant strip.

(3) Flashing shall extend over the top of the cant strip and shaped to form a drip.

9.27.11.13.(1) The cant strip required in Article 9.27.11.12. may be omitted where a gravel stop is provided at the edge of roofs.

(2) The roofing membranes shall be carried over the edge of the roof before the gravel stop is fastened and 2 plies of roofing membrane mopped to the top surface of the gravel stop before the flood coat is applied.

(3) The gravel stop shall extend over the edge of the roof to form a drip or shall be flashed so that the flashing extends over the edge to form a drip.

SUBSECTION 9.27.12. SELVAGE ROOFING

Selvage asphalt
roofing

9.27.12.1. Wide selvage asphalt roofing shall provide double coverage over the entire roof surface.

9.27.12.2. Plies of selvage roofing shall be cemented together to ensure a water tight joint.

SUBSECTION 9.27.13. SHEET METAL ROOFING

9.27.13.1. Sheet metal roofing shall be not less than 0.33 mm thick galvanized steel, 0.35 mm thick copper, 0.46 mm thick zinc or 0.48 mm thick aluminum.

SUBSECTION 9.27.14. GLASS REINFORCED POLYESTER ROOFING

9.27.14.1. Where glass reinforced polyester roofing panels are not supported by roof decking but span

between spaced supports, the panels shall be designed to support the design roof load.

SUBSECTION 9.27.15. DOWNSPOUTS AND ROOF DRAINS

Downspouts and
roof drains

9.27.15.1. Where downspouts are provided and are not connected to a sewer, extensions shall be provided to carry rainwater away from the building in a manner which will prevent soil erosion.

9.27.15.2. RESERVED.

SECTION 9.28 SIDING

SUBSECTION 9.28.1. SCOPE

Exterior wall
coverings

9.28.1.1. This Section applies to exterior wall coverings of lumber, wood shingles, shakes, asbestos-cement shingles and sheets, plywood, waferboard, hard-pressed fibreboard, asphalt shingles, vinyl, aluminum and steel including trim, soffits and flashing.

9.28.1.2. Requirements for stucco shall conform to Section 9.29 and requirements for masonry veneer shall conform to Section 9.20.

9.28.1.3. Where asphalt shingles are used as siding, they shall conform to the requirements in Section 9.27 for asphalt roof shingles.

SUBSECTION 9.28.2. GENERAL

Protection

9.28.2.1. Exterior walls shall be protected with siding, including flashing, trim and other special purpose accessory pieces required for the siding system being used, to restrict the entry of rain and snow into the wall assembly.

Clearance from
finished grade

9.28.2.2. Not less than a 200 mm clearance shall be provided between the finished ground level and siding that is adversely affected by moisture such as wood, plywood, waferboard and hardboard.

9.28.2.3. Not less than a 50 mm clearance shall be provided between a roof surface and siding that is adversely affected by moisture such as wood, plywood, waferboard and hardboard.

9.28.2.4. Insulating asphalt siding shall be ventilated by not less than a 10 mm air space behind the siding.

SUBSECTION 9.28.3. FLASHING

9.28.3.1. Flashing shall consist of not less than 1.73 mm thick sheet lead, 0.33 mm thick galvanized steel, 0.46 mm thick copper, 0.46 mm thick zinc, 0.48 mm thick aluminum or 1.02 mm thick vinyl.

Flashing
installation

9.28.3.2. Flashing shall be installed at every horizontal junction between 2 different exterior finishes, except where the upper finish overlaps the lower finish.

Flashing over
exterior wall
openings

9.28.3.3. Except as provided in Article 9.28.3.5., flashing shall be applied over exterior wall openings where the vertical distance from the bottom of the eave to the top of the trim is more than 1/4 of the horizontal overhang of the eave.

9.28.3.4. Flashing shall be installed so that it extends upwards not less than 50 mm behind the sheathing paper and forms a drip on the outside edge.

9.28.3.5. Where a window or exterior door is designed to be installed without head flashing, the exterior flange of the window or door frame shall be bedded into a non-hardening type caulking material and the exterior flange screwed down over the caulking material to the wall framing to form a waterproof joint.

SUBSECTION 9.28.4. CAULKING

Caulking

9.28.4.1. Caulking shall be provided where required to prevent the entry of water into the structure.

9.28.4.2.(1) Caulking shall be provided between masonry, siding or stucco and the adjacent door and window frames or trim, including sills unless such locations are completely protected from the entry of rain.

(2) Caulking shall also be provided at vertical joints between different cladding materials unless the joint is suitably lapped or flashed to prevent the entry of rain.

Specifications

9.28.4.3.(1) Caulking shall be of a non-hardening type suitable for exterior use, selected for its ability to resist the effects of weathering and shall be compatible with and adhere to the substrate to which it is applied.

(2) Caulking shall conform to one of the following standards:

- CGSB 19-GP-5M, "Sealing Compound, One Component, Acrylic Base, Solvent Curing,"
- CAN2-19.13, "Sealing Compound, One Component, Elastomeric, Chemical Curing,"
- CGSB 19-GP-14M, "Sealing Compound, One Component, Butyl-Polyisobutylene Polymer Base, Solvent Curing,"
- CAN2-19.24, "Sealing Compound, Multi-Component, Chemical Curing."

SUBSECTION 9.28.5. ATTACHMENT OF SIDING

Nailing of
siding

9.28.5.1. Except as permitted in Articles 9.28.5.4. to 9.28.5.8., siding shall be nailed to the framing members, furring members or to blocking between the framing members.

Blocking of
siding

9.28.5.2. Blocking for the attachment of siding shall be not less than 38 mm by 38 mm lumber securely nailed to the framing and spaced not more than 600 mm o.c.

Furring for
siding

9.28.5.3.(1) Furring for the attachment of siding shall be not less than 19 mm by 38 mm lumber when applied over sheathing, except as permitted in Articles 9.28.5.7. and 9.28.5.8.

(2) When applied without sheathing such furring shall be not less than 19 mm by 64 mm lumber on supports spaced not more than 400 mm o.c., and 19 mm by 89 mm on supports spaced not more than 600 mm o.c.

(3) Furring shall be securely fastened to the framing and shall be spaced not more than 600 mm o.c.

9.28.5.4. Vertical lumber and stucco lath or reinforcing may be attached to sheathing only where the sheathing consists of not less than 14.3 mm lumber, 12.5 mm plywood or 12.7 mm waferboard.

9.28.5.5. Vertically applied metal siding and wood shingles and shakes may be attached to the sheathing only where the sheathing consists of not less than 14.3 mm lumber, 7.5 mm plywood or 7.9 mm waferboard.

Asbestos-cement
shingles siding
attachment

9.28.5.6. Asbestos-cement shingles may be attached to the sheathing only when the sheathing consists of not less than 14.3 mm lumber, 9.5 mm plywood or 11.1 mm waferboard.

Table 9.28.5.A.
Forming Part of Article 9.28.5.9.

ATTACHMENT OF SIDING			
Type of Siding	Min. Nail or Staple Length, mm	Min. No. of Nails or Staples	Maximum Nail or Staple Spacing
Wood trim	51	--	600 mm (o.c.)
Lumber siding or horizontal siding made from sheet material	51	--	600 mm (o.c.)
Metal siding	38	--	600 mm (o.c.) (nailed to framing) 400 mm (o.c.) (nailed to sheathing only)
Handsplit wood shakes up to 200 mm in width	51	2	--
Handsplit wood shakes over 200 mm in width	51	3	--
Wood shingles and machine grooved shakes up to 200 mm in width	32	2	--
Wood shingles and machine grooved shakes over 200 mm in width	32	3	--
Asbestos-cement shingles	32	2	--
Panel or sheet type siding up to 7 mm thick	38	--	150 mm (o.c.) along edges
Panel or sheet type siding greater than 7 mm thickness	51	--	300 mm (o.c.) along intermediate supports
Column 1	2	3	4

Wood shingles and shakes siding attachment

9.28.5.7. Where wood shingles or shakes are applied to sheathing which is not suitable for attaching the shingles or shakes, the shingles or shakes may be attached to a wood lath not less than 38 mm by 9.5 mm thick securely nailed to the framing and applied as described in Article 9.28.7.5.

9.28.5.8. Where asbestos-cement shingles are applied to sheathing that is not suitable for attaching the shingles, the shingles may be fastened to a wood lath not less than 89 mm by 9.5 mm thick securely nailed to the framing. Such lath shall be applied so that it overlaps the preceding shingle course by not less than 20 mm.

9.28.5.9. Nail or staple size and spacing for the attachment of siding and trim shall conform to Table 9.28.5.A.

9.28.5.10.(1) Nails or staples for the attachment of sidings and wood trim shall be corrosion-resistant and shall be compatible with the siding material.

(2) Fasteners for metal or vinyl siding shall be positioned to permit expansion and contraction of the siding.

9.28.5.11.(1) Fasteners for shakes and shingles shall penetrate through the nail-holding base or not less than 19 mm into the framing.

(2) Fasteners for other types of siding shall penetrate through the nail-holding base or not less than 25 mm into the framing.

SUBSECTION 9.28.6. LUMBER SIDING

Quality

9.28.6.1. Lumber siding shall be sound, free of knot holes, loose knots, through checks or splits.

Thickness

9.28.6.2. Drop, rustic, novelty, lapped board and vertical wood siding shall be not less than 14.3 mm thick and not more than 286 mm wide.

Bevel siding

9.28.6.3.(1) Bevel siding shall be not less than 5 mm thick at the top and 12 mm thick at the butt for sidings 184 mm or less in width, and 14.3 mm thick at the butt for sidings wider than 184 mm.

(2) Bevel siding shall be not more than 286 mm wide.

Prevention of
water
penetration

9.28.6.4.(1) Lumber siding shall prevent water from entering at the joints by the use of lapped or matched joints or by vertical wood battens.

(2) Siding shall overlap not less than 1 mm per 16 mm width of lumber, but not less than 9.5 mm for matched siding, 25 mm for lapped bevel siding or 12 mm for vertical battens.

SUBSECTION 9.28.7. WOOD SHINGLES AND MACHINE GROOVED SHAKES

Grading

9.28.7.1.(1) Shingles and shakes shall conform to CSA 0118.1. "Western Red Cedar Shingles, Handsplit Western Red Cedar Shakes and Machine-Grooved Shakes."

(2) Shakes shall be not less than No. 1 grade and shingles not less than No. 2 grade, except that No. 3 grade may be used for undercoursing.

Shingles and shakes width

9.28.7.2. Shingles and shakes shall be not less than 65 mm nor more than 350 mm wide.

Fastening for shingles and shakes

9.28.7.3. Shingles or shakes shall be fastened with nails located approximately 20 mm from each edge and not less than 25 mm above the exposure line for single-course applications, or approximately 50 mm above the butt for double-course applications.

Single and double shingle application

9.28.7.4.(1) In single-course application, joints in succeeding courses shall be offset at least 40 mm so that joints in any 2 of 3 consecutive courses are staggered.

(2) In double-course application, joints in the outer course shall be offset from joints in the under-course by not less than 40 mm, and joints in succeeding courses shall be offset not less than 40 mm.

Shingles and shakes application

9.28.7.5.(1) When lath is used with double-course application, it shall be spaced according to the exposure and securely fastened to the framing.

(2) The butts of the under-course shall rest on the top edge of the lath.

(3) The outer course shall be fastened to the lath with nails of sufficient length to penetrate through the lath.

(4) The butts of the shingles or shakes shall be so located that they project not less than 12 mm below the bottom edge of the lath.

(5) If wood lath is not used, the butts of the under-course shingles or shakes shall be located 12 mm above the butts of the outer course.

9.28.7.6. The exposure and butt thickness of shingles shall conform to Table 9.28.7.A.

Table 9.28.7.A.
Forming Part of Article 9.28.7.6.

EXPOSURE AND THICKNESS OF WOOD SHINGLES AND MACHINE GROOVED SHAKES			
Shake or Shingle Length, mm	Maximum Exposure		Minimum Butt Thickness, mm
	Single Coursing, mm	Double Coursing, mm	
400	190	305	10
450	216	356	11
600	292	406	13
Column 1	2	3	4

SUBSECTION 9.28.8. ASBESTOS-CEMENT SHINGLES AND SHEETS

Asbestos-cement
shingles and
sheets
specifications

9.28.8.1. Asbestos-cement shingles and sheets shall conform to one of the following:

- CGSB 34-GP-4M, "Siding, Asbestos Cement, Shingles and Clapboards,"
- CGSB 34-GP-5M, "Sheets, Asbestos Cement, Cougated,"
- CGSB 34-GP-14M, "Sheets, Asbestos Cement, Decorative,"
- CAN2-34.16, "Sheets, Asbestos Cement, Flat, Fully Compressed,"
- CGSB 34-GP- 17M, "Sheets, Asbestos Cement. Flat, Semi-compressed," or
- CGSB 34-GP-21 M, "Panels, Sandwich Asbestos, Cement and Insulating Cores."

Asbestos-cement
shingles and
sheets thickness

9.28.8.2.(1) Asbestos-cement shingles shall weigh not less than 8.06 kg/m².

(2) Asbestos-cement sheet shall be not less than 4.75 mm thick where applied to studs spaced not more than 400 mm o.c., nor less than 6 mm thick where applied to studs spaced not more than 600 mm o.c.

(3) Where applied over sheathing, thickness shall be not less than 3.15 mm.

Fastening

9.28.8.3. Asbestos-cement shingles shall be fastened with nails located not less than 25 mm above the exposure line.

Installation

9.28.8.4.(1) Asbestos-cement shingles shall be installed so that vertical joints in succeeding courses are staggered.

(2) Asphalt-coated backer strips shall be installed behind each vertical joint.

(3) Shingles shall have not less than a 25 mm head lap.

Vertical joints

9.28.8.5. Vertical joints of asbestos-cement panels shall be protected with batten strips, caulking or other suitable method.

Horizontal joints

9.28.8.6. Horizontal joints shall be lapped, flashed, caulked or otherwise suitably protected.

SUBSECTION 9.28.9. PLYWOOD

Plywood specification

9.28.9.1. Plywood siding shall be exterior type conforming to CSA 0115, "Hardwood and Decorative Plywood," CSA 0121, "Douglas Fir Plywood," CSA 0151, "Canadian Softwood Plywood" or CSA 0153, "Poplar Plywood."

Plywood siding thickness

9.28.9.2.(1) Plywood siding shall be not less than 6 mm thick when applied directly to sheathing.

(2) When applied directly to framing or over furring strips, plywood thickness shall conform to Table 9.28.9.A.

(3) The thickness of grooved or textured plywood shall be measured at the point of least thickness.

Table 9.28.9.A.
Forming Part of Article 9.28.9.2.

MINIMUM PLYWOOD THICKNESS, EXTERIOR WALL FINISH

Spacing of Supports, mm	Face Grain Parallel to Supports, mm	Face Grain Right Angles to Supports, mm
400	8	6
600	11	8
Column 1	2	3

9.28.9.3. The edges of plywood siding shall be treated with a suitable paint or sealer.

Edge support

9.28.9.4.(1) Plywood applied in panels shall have all edges supported.

(2) Not less than a 2 mm gap shall be provided between sheets.

(3) Vertical joints in such siding shall be protected with batten strips or caulking when the plywood joints are not matched.

(4) Horizontal joints shall be lapped not less than 25 mm or shall be suitably flashed.

Lapping

9.28.9.5.(1) Plywood applied in horizontal lapped strips shall have not less than a 2 mm gap provided at the butted ends, which shall be caulked.

(2) The horizontal joints shall be lapped not less than 25 mm.

(3) Wedges shall be inserted under all vertical butt joints and at all corners when horizontal lapped plywood is applied without sheathing.

SUBSECTION 9.28.10. HARDBOARD

Hardboard
specification

9.28.10.1.(1) Factory-finished hardboard siding shall conform to CGSB 11-GP-5Ma, "Hardboard, for Exterior Cladding".

(2) Hard-pressed fibreboard siding which is not factory finished shall conform to Types 1, 2 or 5 in CGSB 11-GP-3M, "Hardboard".

Hardboard
thickness

9.28.10.2.(1) Type 1 or 2 hardboard siding shall be at least 6.0 mm thick when applied over sheathing that provides continuous support and at least 7.5 mm thick when applied to furring or framing members not more than 400 mm o.c.

(2) Type 5 hardboard siding shall be at least 9.0 mm thick when applied over sheathing that provides continuous support or over furring or framing members spaced not more than 400 mm o.c.

(3) Where hardboard siding is grooved, the grooves shall not extend more than 1.5 mm into the required thickness.

Edge support

9.28.10.3.(1) Hardboard siding applied in panels shall have all edges supported.

(2) Not less than a 5 mm gap shall be provided between sheets.

(3) Vertical joints in such siding shall be protected with batten strips or caulking when the joints are not matched.

(4) Horizontal joints shall be lapped not less than 25 mm or shall be suitably flashed.

Horizontal
lapped strips

9.28.10.4.(1) Hardboard applied in horizontal lapped strips shall have not less than a 5 mm gap provided at the butted ends, which shall be caulked or otherwise protected with suitable mouldings.

(2) The horizontal joints shall be lapped not less than 25 mm.

9.28.10.5. At least 3 mm clearance shall be provided between hardboard siding and door or window frames.

SUBSECTION 9.28.11. WAFERBOARD

9.28.11.1. Waferboard siding shall conform to CAN3-0188.2, "Waferboard."

Thickness

9.28.11.2.(1) Waferboard shall be not less than 7.9 mm thick where applied directly to sheathing.

(2) Where applied directly to framing or over furring strips, waferboard shall be not less than 9.5 mm thick on supports spaced not more than 400 mm o.c. and 12.7 mm thick on supports spaced not more than 600 mm o.c.

Edge support

9.28.11.3.(1) Waferboard applied in panels shall have all edges supported and treated with a primer or sealer.

(2) Not less than a 3 mm gap shall be provided between sheets.

(3) Vertical joints in such siding shall be protected with batten strips or caulking when the waferboard joints are not matched.

(4) Horizontal joints shall be lapped not less than 25 mm or shall be suitably flashed.

9.28.11.4. At least a 3 mm clearance shall be provided between waferboard siding and door or window frames.

SUBSECTION 9.28.12. METAL SIDING

Steel siding

9.28.12.1. Horizontal and vertical strip steel siding, including flashing and trim accessories, shall conform to CGSB 93-GP-4M, "Siding, Soffits and Fascia, Steel, Galvanized, Prefinished, Residential."

9.28.12.2. Steel sheet siding shall have a minimum thickness of 0.3 mm and conform to CGSB 93-GP-3M, "Sheet, Steel, Galvanized, Prefinished, Residential."

Aluminum siding

9.28.12.3 Horizontal and vertical strip aluminum siding, including flashing and trim accessories, shall conform to CGSB 93-GP-2Ma, "Siding, Soffits and Fascia, Aluminum, Prefinished, Residential."

9.28.12.4. Aluminum sheet siding shall conform to CGSB 93-GP-1M, "Sheet, Aluminum Alloy, Prefinished, Residential" and shall have a minimum thickness of 0.58 mm, except that siding supported by backing or sheathing shall have a minimum thickness of 0.46 mm.

SUBSECTION 9.28.13. VINYL SIDING

Vinyl siding

9.28.13.1. Vinyl siding, including flashing and trim accessories, shall conform to CGSB 41-GP-24Ma, "Siding, Soffits and Fascia, Rigid Vinyl."

9.28.13.2. The attachment of vinyl siding shall conform to the requirements in Subsection 9.28.5. for metal siding.

9.28.13.3. Vinyl siding shall be applied over sheathing or other backing that will provide continuous support for the siding.

SECTION 9.29 STUCCO

SUBSECTION 9.29.1. GENERAL

9.29.1.1.(1) Sheathing shall be provided beneath stucco applied over wood-frame walls except as permitted in Article 9.29.4.2.

(2) Where applied beneath stucco, sheathing shall conform to Subsection 9.23.16.

9.29.1.2.(1) Stucco lath or reinforcing shall be used to attach stucco to wood-frame construction.

(2) Such lath or reinforcing shall also be used to attach stucco to masonry where the masonry is soft-burned tile or brick of less strength than the stucco or if the masonry surface is not sound, clean and sufficiently rough to provide a good key.

(3) Stucco applied over masonry chimneys shall be reinforced.

Stucco finish

9.29.1.3. Stucco finish shall not be applied over concrete masonry units less than 1 month old unless the units have been cured by the autoclave process.

9.29.1.4. Stucco shall be not less than 200 mm above finished ground level except when it is applied over concrete or masonry.

9.29.1.5. Flashing and caulking used with stucco shall conform to Subsections 9.28.3. and 9.28.4., except that if aluminum flashing is used, it shall be separated from the stucco by an impervious membrane or coating.

SUBSECTION 9.29.2. STUCCO MATERIALS

Specification

9.29.2.1. Portland cement shall conform to CAN3-A5, "Portland Cements."

Aggregate

9.29.2.2. Aggregate shall be clean, well-graded natural sand or sand manufactured from crushed stone, gravel or air-cooled blast furnace slag and shall contain no significant amounts of deleterious material. Aggregate grading shall conform to Table 9.29.2.A.

Table 9.29.2.A.
Forming Part of Article 9.29.2.2.

AGGREGATING GRADING FOR STUCCO		
Sieve Sizes, mm	Per Cent Passing	
	Maximum	Minimum
4	--	100
2	--	90
1	90	60
0.5	60	45
0.25	30	10
0.125	5	--
Column 1	2	3

Water for stucco

9.29.2.3. Water shall be clean and free of significant amounts of deleterious material.

SUBSECTION 9.29.3. FASTENERS

Stucco fasteners

9.29.3.1. Fasteners for stucco lath or reinforcing shall be corrosion-resistant and of a material other than aluminum.

Nails for stucco lath

9.29.3.2.(1) Nails for stucco lath or reinforcing shall be not less than 3.2 mm diam with a head diameter of not less than 11.1 mm.

(2) Staples shall be not less than 1.98 mm diam or thickness.

Staples for
stucco lath

9.29.3.3.(1) Staples and nails for attaching stucco lath or reinforcing to vertical surfaces shall be of sufficient length to penetrate 25 mm into framing members or to the full depth of the sheathing where the sheathing is used for attachment.

(2) On horizontal surfaces nails shall be not less than 38 mm long.

SUBSECTION 9.29.4. STUCCO LATH

Stucco lath

9.29.4.1.(1) Rib lath or expanded metal stucco mesh shall be copper-alloy steel coated with rust-inhibitive paint after fabrication or shall be galvanized.

(2) Woven or welded wire mesh shall be galvanized.

Stucco
sheathing

9.29.4.2. Sheathing need not be provided beneath stucco where not less than 1.19 mm diam galvanized wire is applied horizontally to the framing at vertical intervals not exceeding 150 mm, or where paper-backed welded wire metal lath is used.

9.29.4.3. Stucco lath shall conform to Table 9.29.4.A.

Table 9.29.4.A.
Forming Part of Article 9.29.4.3.

STUCCO LATH				
Location	Type of Lath	Min. Diam of Wire, mm	Max. Mesh Opening	Min. Mass, kg/m ²
Vertical surfaces	Welded or woven wire	1.19 1.35 1.60	25 mm 38 mm 51 mm	-- -- --
	Stucco mesh reinforcing (expanded metal)	--	25.8 cm ²	0.98
Horizontal surfaces	9.5 mm rib lath	--	--	1.84
	Cedar lath	--	--	--
Column 1	2	3	4	5

Furring for
stucco lath

9.29.4.4. Stucco lath shall be held not less than 6 mm away from the backing by means of suitable self-furring devices.

Application

9.29.4.5.(1) Stucco lath shall be applied with the long dimension horizontal.

(2) Horizontal and vertical joints shall be lapped not less than 50 mm.

(3) End joints shall be staggered and shall occur over framing members.

(4) External corners shall be reinforced with a vertical strip of lath or reinforcing extending not less than 150 mm on both sides of the corner, or the lath or reinforcing shall extend around corners not less than 150 mm.

Fastening

9.29.4.6. Stucco lath shall be fastened in conformance with Subsection 9.28.5.

Spacing of fasteners on vertical surface

9.29.4.7.(1) Fasteners on vertical surfaces shall be spaced not more than 150 mm o.c. vertically and 400 mm o.c. horizontally, or 100 mm o.c. vertically and 600 mm o.c. horizontally.

(2) Other nailing patterns may be used provided there are not fewer than 20 fasteners per square metre of wall surface.

Spacing of fasteners on horizontal surface

9.29.4.8. Fasteners on horizontal surfaces shall be spaced not more than 150 mm o.c. along the framing members when members are spaced not more than 400 mm o.c., and 100 mm o.c. along members when members are spaced not more than 600 mm o.c.

SUBSECTION 9.29.5. STUCCO MIXES**Stucco mixes**

9.29.5.1. Stucco mixes shall conform to Table 9.29.5.A.

Table 9.29.5.A.

Forming Part of Article 9.29.5.1.

STUCCO MIXES (by volume)			
Portland Cement	Masonry Cement Type H	Lime	Aggregate
1 1	-- 1	1/4 to 1 --	3 1/4 to 4 parts per part of cementitious material
Column 1	2	3	4

Pigment for stucco

9.29.5.2.(1) Pigment if used shall consist of pure mineral oxides inert to the action of sun, lime and cement.

(2) Pigment shall not exceed 6 per cent of the portland cement by weight.

Mixing

9.29.5.3. Materials shall be thoroughly mixed before and after water is added. Stucco shall be applied not later than 3 h after the initial mixing.

SUBSECTION 9.29.6. STUCCO APPLICATION

Stucco
application
temperature

9.29.6.1.(1) The base for stucco shall be maintained above freezing.

(2) Stucco shall be maintained at a temperature of not less than 10°C during application and for not less than 48 h afterwards.

Application

9.29.6.2. Stucco shall be applied with not less than 2 base coats and 1 finish coat, providing a total thickness of at least 15 mm, measured from the face of the lath or face of the masonry where no lath is used.

Stucco (1st
coat)

9.29.6.3.(1) The first coat shall be not less than 6 mm thick, measured from the face of the lath or masonry, fully embedding the lath.

(2) The surface shall be scored to provide a key with the second coat.

Stucco (2nd
coat)

9.29.6.4.(1) The second coat shall be not less than 6 mm thick.

(2) The surface shall be lightly roughened to provide a key with the finish coat if the finish coat is other than stone dash.

Stucco (finish
coat)

9.29.6.5.(1) When the finish coat is other than stone dash, the base shall be dampened but not saturated before the finish coat is applied.

(2) The thickness of the finish coat shall be not less than 3 mm.

Stone dash
finish

9.29.6.6. When a stone dash finish is used, the stone shall be partially embedded in the second coat before the second coat starts to set or stiffen.

SECTION 9.30 INTERIOR WALL AND CEILING FINISHES

SUBSECTION 9.30.1. GENERAL

Interior wall and
ceiling finishes

9.30.1.1.(1) The requirements for plastering in this Section apply to the application of plaster to gypsum or metal lath attached to wood furring or framing.

(2) Plastering applications and plaster mixes not described in this Section and requirements for metal framing and metal furring shall conform to CSA A82.30, "Interior Furring, Lathing and Gypsum Plastering."

(3) Flame-spread requirements are contained in Subsection 9.10.16.

9.30.1.2.(1) The requirements for wall and ceiling finishes in this Section are basic requirements.

(2) Where a wall or ceiling assembly is required to provide a certain fire-resistance rating, a flame-spread rating or a sound transmission class rating, the wall or ceiling finish shall be subject to the appropriate requirements in Sections 9.10 and 9.11 in addition to the requirements in this Section.

SUBSECTION 9.30.2. WATERPROOF WALL FINISH

Waterproofing of interior finishes

9.30.2.1. Waterproof finish shall be provided to a height of not less than 1.8 m above the floor in shower stalls, 1.2 m above the rims of bathtubs equipped with showers and 400 mm above the rims of bathtubs not equipped with showers.

Waterproof finish

9.30.2.2. Waterproof finish shall consist of ceramic, plastic or metal tile, sheet vinyl, tempered hardboard, laminated thermosetting decorative sheets or linoleum.

SUBSECTION 9.30.3. WOOD FURRING

Table 9.30.3.A.
Forming Part of Article 9.30.3.1.

Maximum Spacing of Furring, mm	Minimum Spacing of Furring, mm		
	Maximum Spacing of Furring Supports		
	Continuous Support	400 mm (o.c.)	600 mm (o.c.)
300	19 by 38	19 by 38	19 by 64
400	19 by 38	19 by 38	19 by 64
600	19 by 38	19 by 64	19 by 89
Column 1	2	3	4

Wood furring	9.30.3.1. Wood furring for the attachment of wall and ceiling finishes shall conform to Table 9.30.3.A.
Nails for furring	9.30.3.2. Furring shall be fastened to the framing or to wood blocks with not less than 51 mm nails.
SUBSECTION 9.30.4. GYPSUM LATH	
Specification	9.30.4.1. Gypsum lath shall conform to CSA A82 27, "Gypsum Board Products."
Thickness	9.30.4.2. Gypsum lath shall be not less than 9.5 mm thick on supports not more than 400 mm o.c. and 12.7 mm thick on supports not more than 600 mm o.c.
	9.30.4.3. Gypsum lath shall be applied so that vertical joints do not occur at jamb studs above or below openings.
Fastening method	9.30.4.4.(1) Gypsum lath shall be fastened at each support with no fewer than 4 uniformly spaced fasteners where 406 mm wide lath is used on vertical supports spaced not more than 400 mm o.c.
	(2) Such lath shall be fastened with no fewer than 5 fasteners per support for all other conditions.
	(3) Lath 610 mm wide shall be fastened with no fewer than 6 fasteners per support.
	(4) Lath need not be nailed to the framing at inside corners.
Nails for gypsum lath	9.30.4.5. Nails for fastening gypsum lath shall be blued steel wire-nails not less than 32 mm long, with at least 2.29 mm shank diam and 7.5 mm head diam.
Staples for gypsum lath	9.30.4.6.(1) Staples for fastening gypsum lath shall be not less than 25 mm long for 9.5 mm thick lath and 28 mm long for 12.7 mm lath.
	(2) Staples shall be not less than 1.6 mm diam or thickness with not less than a 19 mm crown.
SUBSECTION 9.30.5. METAL LATH	
Metal lath	9.30.5.1. Metal lath shall consist of galvanized metal or copper-bearing steel treated with a suitable rust-inhibitive coating after manufacture.
Weight of metal lath	9.30.5.2. The weight of metal lath shall conform to Table 9.30.5.A.

9.30.5.3. Paper backed welded wire lath shall consist of wire not less than 1.6 mm in diameter, except that when applied to supports spaced more than 400 mm o.c., every third wire at right angles to the supports shall be not less than 2.9 mm in diameter.

Table 9.30.5.A.
Forming Part of Article 9.30.5.2.

MINIMUM MASS OF METAL LATH			
Type of Lath	Max. Spacing of Wood, mm		
	Min Mass, kg/m ²	Walls	Ceilings
Diamond mesh	1.36	300	300
	1.63	400	300
Flat rib	1.36	400	300
	1.63	400	400
9.5 mm rib	1.36	400	400
	1.63	500	500
	1.90	600	600
Paper-backed welded wire	0.76	400	400
	1.06	600	600
Column 1	2	3	4

Nails for metal lath

9.30.5.4.(1) Nails for the attachment of metal lath shall be not less than 3.2 mm diam large-head roofing nails not less than 38 mm long for ceiling supports and 25 mm long for wall supports.

(2) Nails shall be spaced not more than 150 mm o.c.

Staples for metal lath

9.30.5.5.(1) Staples for the attachment of metal lath shall be not less than 2 mm diam or thickness nor less than 38 mm long with a 19 mm crown.

(2) Staples shall be spaced not more than 150 mm o.c.

Application

9.30.5.6.(1) Metal lath shall be applied at right angles to the supports.

(2) End joints shall be lapped not less than 25 mm.

(3) Side joints of diamond mesh lath shall be lapped not less than 12 mm.

(4) Side joints of rib lath shall be lapped so that the adjacent side ribs nest.

(5) End joints shall be staggered.

(6) End laps that occur between supports shall be tied.

Furring for
metal lath

9.30.5.7. When metal lath is applied over a continuous surface, it shall be held not less than 6 mm from the back-up by means of furring strips, self-furring nails or self-furring lath.

SUBSECTION 9.30.6. CORNER REINFORCEMENT FOR PLASTER

Corner
reinforcement

9.30.6.1. Material for corner reinforcement shall have at least the same corrosion resistance as metal plaster lath.

9.30.6.2.(1) All internal corners of walls and ceilings shall be reinforced with metal lath or wire fabric having not less than 50 mm wide legs.

(2) Corner beads shall be installed at all external corners.

Corner
reinforcement for
openings

9.30.6.3. Corners of openings shall be reinforced with a strip of metal lath not less than 150 mm by 450 mm long installed at an angle of 45° to the horizontal.

Fastening of
plaster
reinforcement

9.30.6.4. All plaster reinforcement shall be fastened to the lath and not to the framing.

SUBSECTION 9.30.7. PLASTERING

Plaster material
specifications

9.30.7.1. Materials used in plastering shall conform to the following:

CSA A82.21, "Gypsum and Terms Relating to Gypsum Products,"

CSA A82.22, "Gypsum Plasters," or

CSA A82.57, "Inorganic Aggregates for Use in Interior Plaster."

Grounds

9.30.7.2. Grounds shall be installed to ensure even and uniform plaster thickness.

Plaster
thickness

9.30.7.3.(1) Plaster shall be not less than 10 mm thick at any point, measured from the face of the lath.

(2) Where electric cables for heating are embedded in the plaster, there shall be not less than 10 mm of plaster covering the cables.

9.30.7.4. Plaster shall be applied in 3 coats consisting of a scratch coat, brown coat and finish coat, except that where the base consists of gypsum lath or unit masonry other than concrete masonry, a 2-coat application may be used in which a brown coat is doubled back over the scratch coat.

Plaster over
concrete or
masonry

9.30.7.5.(1) When plaster is applied over concrete or concrete masonry, a special bond coat shall be used as the first coat or a liquid bonding agent conforming to CSA A261, "Liquid Bonding Agents for Interior Plasters" shall be applied before application of the first coat of plaster.

(2) Normal finishing hydrated lime shall not be used in plaster applied to exterior masonry or concrete walls.

Plaster for
electric heating

9.30.7.6. Plaster to embed cables used for electric heating shall not incorporate lightweight aggregate.

Plaster mixes

9.30.7.7.(1) When 3-coat plaster is used, the first or scratch coat shall consist of 1 part gypsum plaster to 2 parts sand by weight.

(2) The second or brown coat shall consist of 1 part gypsum plaster to 3 parts sand by weight.

(3) The finish coat shall consist of 1 part gypsum plaster to 3 parts lime by volume.

9.30.7.8.(1) When 2-coat plaster is used, the first coat shall consist of 1 part gypsum plaster to 2 1/2 parts sand by weight.

(2) The finish coat shall consist of 1 part gypsum plaster to 3 parts lime by volume.

9.30.7.9. The finish coat shall be trowelled to a smooth hard finish unless a special decorative finish is used conforming to CSA A82.22, "Gypsum Plasters."

9.30.7.10.(1) In cold weather plaster shall be applied at from 10°C to 20°C and maintained at this temperature range for not less than 96 h, and above freezing thereafter.

(2) Ventilation shall be provided for the proper drying of the plaster.

SUBSECTION 9.30.8. GYPSUM BOARD FINISH (TAPED JOINTS)

Gypsum board
specification

9.30.8.1. Gypsum board shall conform to CSA A82.27, "Gypsum Board Products."

Application

9.30.8.2.(1) Gypsum board applied as a single layer shall be not less than 9.5 mm thick on supports not more than 400 mm o.c., and 12.7 mm thick on supports not more than 600 mm o.c.

(2) When applied as 2 layers, each layer shall be not less than 9.5 mm thick on supports not more than 600 mm o.c.

Fasteners

9.30.8.3. The length of fasteners for gypsum board shall conform to Table 9.30.8.A., except that lesser depths of penetration are permitted for assemblies required to have a fire-resistance rating provided it can be shown, on the basis of fire tests, that such depths are adequate for the required rating.

Table 9.30.8.A.
Forming Part of Article 9.30.8.3.

FASTENER PENETRATION INTO WOOD SUPPORTS				
Required <u>Fire-Resistance</u> <u>Rating</u> of Assembly, h	Min. Fastener Penetration Into Wood Supports, mm			
	Walls		Ceilings	
	Nails	Screws	Nails	Screws
<u>Fire-resistance rating</u> not required	20	15	20	15
3/4	20	20	30	30
1	20	20	45	45
1 1/2	20	20	60	60
Column 1	2	3	4	5

9.30.8.4. Nails for fastening gypsum board to wood supports shall be not less than 2.3 mm shank diam annular grooved nails with a head diameter of 5.5 mm.

Gypsum board single-layer application

9.30.8.5.(1) For single-layer application nails shall be spaced not more than 180 mm o.c. on ceiling supports, and not more than 200 mm apart along vertical wall supports, except that nails may be spaced in pairs about 50 mm apart every 300 mm along such wall or ceiling supports.

(2) Where the ceiling sheets are supported by the wall sheets around the perimeter of the ceiling, this support may be considered as equivalent to nailing at this location.

(3) The uppermost wall nails shall be not more than 200 mm below the ceiling.

(4) Nails shall be located not less than 10 mm from the side or edge of the board.

(5) Nails shall be driven so that the heads are below the plane of the board surface but do not puncture the paper.

Gypsum board
double-layer
application

9.30.8.6. For double-layer applications, the first layer shall be fastened as in Article 9.30.8.5. The joints in the second layer shall be offset from the joints in the first layer, and the second layer shall be fastened so that the nails penetrate into wood supports the same depth as is required for the first layer.

Strip laminated
application
method

9.30.8.7. Where strip laminated method of application is used, strips of gypsum board not less than 9.5 mm thick and 150 mm wide shall be nailed to the framing members with nailing conforming to Article 9.30.8.5. The finish layer of gypsum board shall be attached to these strips by means of adhesive.

Drywall screws

9.30.8.8. Where gypsum board is applied with drywall screws, the screws shall be spaced not more than 300 mm o.c. along supports, except that on vertical surfaces the screws may be spaced 400 mm o.c. where the supports are not more than 400 mm o.c.

Temperature
for finishing
gypsum board

9.30.8.9. In cold weather the taping and finishing of gypsum board shall be carried out at a temperature of not less than 10°C.

SUBSECTION 9.30.9. PLYWOOD FINISH

Plywood finish
thickness

9.30.9.1.(1) The minimum thickness of plywood interior finish shall conform to Table 9.30.9.A., except that no minimum thickness is required when the plywood is applied over solid backing.

Table 9.30.9.A.
Forming Part of Articles 9.30.9.1. and 9.30.9.2.

MINIMUM THICKNESS OF PLYWOOD INTERIOR FINISH		
Maximum Spacing of Supports, mm (o.c.)	On Supports with no Horizontal Blocking, mm	On Supports with Blocking at Vertical Intervals not Exceeding 1.2 m, mm
400	4.7	4.0
600	8.0	4.7
Column 1	2	3

(2) Thicknesses listed in Table 9.30.9.A. shall permit a manufacturing tolerance of ± 0.4 mm.

9.30.9.2. Where plywood for interior finish is grooved, the grooves shall not extend through the face ply and into the plies below the face ply unless the groove is supported by framing or furring, or if the grain of the face ply is at right angles to the supporting members, unless the thickness of the plywood exceeds the value shown in Table 9.30.9.A. by an amount equal to at least the depth of penetration of the grooves into the plies below the face ply.

Nails for
plywood finish

9.30.9.3. Nails for attaching plywood finishes shall not be less than 38 mm casing or finishing nails spaced not more than 150 mm o.c. along edge supports and 300 mm o.c. along intermediate supports, except that staples providing equivalent lateral resistance may also be used.

Edges

9.30.9.4. All plywood edges shall be supported by furring, blocking or framing.

SUBSECTION 9.30.10. HARDBOARD FINISH

Hardboard
specification

9.30.10.1. Hardboard shall conform to CGSB 11-GP-3M, "Hardboard."

Thickness

9.30.10.2. Hardboard shall be not less than 3.2 mm thick where applied over continuous back-up, 6 mm thick where applied to supports spaced not more than 400 mm o.c. and 9 mm thick where applied to supports spaced not more than 600 mm o.c.

Nails

9.30.10.3. Nails for fastening hardboard shall be casing or finishing nails not less than 38 mm long, spaced not more than 150 mm o.c. along edge supports and 300 mm o.c. along intermediate supports.

Edges

9.30.10.4. All hardboard edges shall be supported by furring, blocking or framing where the back-up is not continuous.

SUBSECTION 9.30.11. INSULATING FIBREBOARD FINISH

Insulating
fibreboard

9.30.11.1. Insulating fibreboard shall conform to CSA A247, "Insulating Fibreboard."

Thickness

9.30.11.2.(1) Insulating fibreboard sheets shall be not less than 11.1 mm thick on supports not more than 400 mm o.c.

(2) Insulating fibreboard tile shall be not less than 12.7 mm thick on supports spaced not more than 400 mm o.c.

Nails and nail
spacing

9.30.11.3.(1) Nails for fastening fibreboard sheets shall be not less than 2.6 mm shank diameter casing or finishing nails of sufficient length to penetrate at least 20 mm into the supports.

(2) Nails shall be spaced not more than 100 mm o.c. along edge supports and 200 mm o.c. along intermediate supports.

Edge support

9.30.11.4. All fibreboard edges shall be supported by blocking, furring or framing.

SUBSECTION 9.30.12. PARTICLEBOARD OR WAFERBOARD FINISH

9.30.12.1.(1) Particleboard finish shall conform to CAN3-0188.1, "Interior Mat-Formed Wood Particleboard."

(2) Waferboard finish shall conform to CAN3-0188.2, "Waferboard."

Thickness

9.30.12.2. Particleboard and waferboard shall be not less than 6.35 mm thick on supports not more than 400 mm o.c., and not less than 9.5 mm thick on supports not more than 600 mm o.c., except that in walls where blocking is provided at midwall height, particleboard or waferboard shall have a thickness of not less than 6.35 mm on supports not more than 600 mm o.c.

Nails and nail
spacing

9.30.12.3. Nails for fastening particleboard and waferboard shall be not less than 38 mm casing or finishing nails spaced not more than 150 mm o.c. along edge supports and 300 mm o.c. along intermediate supports.

Edge support

9.30.12.4. All particleboard and waferboard edges shall be supported by furring, blocking or framing.

SUBSECTION 9.30.13. WALL TILE FINISH

Wall tile base
and adhesive

9.30.13.1. Ceramic tile shall be set in a mortar base or applied with an adhesive. Plastic tile shall be applied with an adhesive.

Mortar for
ceramic tile

9.30.13.2.(1) When ceramic tile is applied to a mortar base the cementitious material shall consist of 1 part portland cement to not more than 1/4 part lime by volume. This shall be mixed with not less than 3 nor more than 5 parts of aggregate per part of cementitious material by volume.

(2) Mortar shall be applied over metal lath or masonry.

(3) Ceramic tile applied to a mortar base shall be thoroughly soaked and pressed into place forcing the mortar into the joints while the tile is wet.

Adhesive for
ceramic tile

9.30.13.3. Adhesives to attach ceramic and plastic tile shall be applied to the finish coat or brown coat of plaster that has been steel-trowelled to an even surface or to gypsum board or to masonry provided the masonry has an even surface.

Water resistant
backing

9.30.13.4. Ceramic and plastic tile installed on walls around bathtubs or showers shall be applied over moisture resistant backing.

Caulking
compounds for
wall tiles

9.30.13.5. The joints between wall tiles and a bathtub shall be suitably caulked with material conforming to CGSB 19-GP-22M, "Sealing Compound, Mildew Resistant, for Tubs and Tile."

SECTION 9.31 FLOORING

SUBSECTION 9.31.1. GENERAL

Flooring

9.31.1.1. Finished flooring shall be provided in all residential occupancies.

Finished
flooring
materials

9.31.1.2. Finished flooring in bathrooms, kitchens, public entrance halls, laundry and general storage areas shall consist of resilient flooring, felted-synthetic-fibre floor coverings, concrete, terrazzo, ceramic tile, mastic or other types of flooring providing similar degrees of water resistance.

Wood sleepers

9.31.1.3. Wood sleepers supporting finished flooring over a concrete base supported on the ground shall be not less than 19 mm by 38 mm and shall be treated with a wood preservative.

9.31.1.4. Finished flooring shall have a surface that is smooth, even and free from roughness or open defects.

SUBSECTION 9.31.2. PANEL-TYPE UNDERLAY

Panel-type
underlay

9.31.2.1. A panel-type underlay shall be provided under resilient flooring, parquet flooring, ceramic tile, felted-synthetic-fibre floor coverings or carpeting laid over lumber subflooring.

9.31.2.2. A panel-type underlay shall be provided under resilient flooring, parquet flooring, felted-synthetic-fibre floor coverings, carpeting or ceramic tile on panel-type subflooring whose edges are unsupported.

**Panel-type
underlay
specifications**

9.31.2.3. Panel-type underlay shall be not less than 6 mm thick and shall conform to one of the following:

CSA 0115, "Hardwood and Decorative Plywood,"
CSA 0121, "Douglas Fir Plywood,"
CSA 0151, "Canadian Softwood Plywood,"
CSA 0153, "Poplar Plywood,"
CAN3-0188.1, "Interior Mat-Formed Wood
Particleboard,"
CAN3-0188.2, "Waferboard," or
CGSB 11-GP-3M, "Hardboard."

Fastening

9.31.2.4. Panel-type underlay shall be fastened to the subfloor with staples, annular grooved flooring nails or spiral nails, spaced not more than 150 mm o.c. along the edges and 200 mm o.c. both ways at other locations.

**Nails for
underlay**

9.31.2.5.(1) Nails for panel-type underlay shall be not less than 19 mm long for 6 mm thick underlay and 22 mm long for 7.9 mm thick underlay.

(2) Staples for panel-type underlay shall have not less than a 1.2 mm shank diameter or thickness with a 4.7 mm crown and shall be not less than 22 mm long for 6 mm underlay and 28 mm long for 7.9 mm and 9.5 mm underlay.

9.31.2.6. Where panel-type underlay is required to be installed over plywood or waferboard, the joints in the underlay shall be offset at least 200 mm from the joints in the underlying subfloor.

**Underlay for
resilient or
ceramic floors**

9.31.2.7. Underlay beneath resilient or ceramic floors applied with an adhesive shall have all holes or open defects on the surface patched so that the defects will not be transmitted to the finished surface.

SUBSECTION 9.31.3. WOOD STRIP FLOORING

Dimensions

9.31.3.1. The thickness of wood strip flooring shall conform to Table 9.31.3.A.

Underlay

9.31.3.2. Wood strip flooring shall not be laid parallel to lumber subflooring unless a separate underlay is provided.

**Laying of wood
strip flooring**

9.31.3.3.(1) If wood strip flooring is applied without a subfloor, it shall be laid at right angles to the joists so that the end joints are staggered and occur over supports or are end matched.

(2) If the flooring is end matched, it shall be laid so that no 2 adjoining strips break joints in the

Table 9.31.3.A.
Forming Part of Article 9.31.3.1.

WOOD STRIP FLOORING			
Type of Flooring -	Maximum Joist Spacing, mm	Minimum Thickness of Flooring, mm	
		With Subfloor	No Subfloor
Matched hardwood (interior use only)	400	7.9	19.0
	600	7.9	33.3
Matched softwood (interior or exterior use)	400	19.0	19.0
	600	19.0	31.7
Square edge softwood (exterior use only)	400	--	25.4
	600	--	38.1
Column 1	2	3	4

same space between supports and each strip bears on no fewer than 2 supports.

Nailing

9.31.3.4.(1) When nails are used, wood strip flooring shall be toe nailed or face nailed with at least 1 nail per strip at the spacings shown in Table 9.31.3.B., except that face nailed strips of more than 25 mm in width shall have no fewer than 2 nails per strip.

(2) Face nails shall be countersunk and the holes filled with suitable filler.

Table 9.31.3.B.
Forming Part of Article 9.31.3.4.

NAILING OF WOOD STRIP FLOORING		
Finish Floor Thickness, mm	Minimum Length of Flooring Nails, mm	Maximum Spacing of Flooring Nails, mm
7.9	38 (1)	200
11.1	51	300
19.0	57	400
25.4	63	400
31.7	70	600
38.1	83	600
Column 1	2	3

Note to Table 9.31.3.B.:
(1) See Article 9.31.3.5

9.31.3.5. Staples may be used to fasten wood strip flooring not more than 7.9 mm in thickness provided the staples are not less than 29 mm long with a shank diameter of 1.19 mm and with 4.7 mm crowns.

SUBSECTION 9.31.4. PARQUET FLOORING

Adhesive for
parquet flooring

9.31.4.1. Adhesive used to attach parquet block flooring shall be suitable for bonding wood to the applicable subfloor material.

SUBSECTION 9.31.5. RESILIENT FLOORING

Type of
resilient
flooring

9.31.5.1.(1) Resilient flooring used on concrete slabs supported on ground shall consist of asphalt, rubber, vinyl-asbestos, unbacked vinyl or vinyl with an inorganic type backing.

(2) Such flooring shall be attached to the base with a suitable waterproof and alkali-resistant adhesive.

SUBSECTION 9.31.6. CERAMIC TILE

Ceramic tile

9.31.6.1. Ceramic tile shall be set in a mortar bed or applied to a sound smooth base with a suitable adhesive.

9.31.6.2.(1) When ceramic tile is set in mortar bed, the bed shall be not less than 32 mm thick. A 50 mm x 50 mm galvanized wire mesh shall be placed in the mortar bed, and asphalt sheathing paper, felt or polyethylene film shall be applied under the mortar bed when the mortar is applied over wood subfloors.

(2) The mortar shall consist, by volume, of

- 1 part portland cement
- 4 parts sand
- 1 part water.

(3) The tile joints shall be grouted with cement grout which is compressed into clean joints between the tiles and then wiped smooth.

9.31.6.3.(1) When ceramic floor tiles are set on panel-type wood sheathing, one of the following assemblies for reinforcing the floor assembly shall be used

- (a) 20 mm thick plywood or waferboard with all edges supported by at least 38 mm x 38 mm blocking with floor joists spaced not greater than 400 mm o.c., with 6 mm underlay,

- (b) sheathing thickness which conforms to Table 9.23.14.A. and having an underlay consisting of 15.9 mm plywood or waferboard with offsetting joints. A 4 mm gap shall be provided between sheets, or
- (c) sub-floor sheathing reinforced with close spaced 38 mm x 38 mm blocking at spacings at least half that of the floor joist spacing.

SECTION 9.32 PLUMBING FACILITIES

SUBSECTION 9.32.1. SCOPE

Plumbing

9.32.1.1. This Section applies to the plumbing facilities and plumbing systems within dwelling units.

9.32.1.2. Facilities in plumbing systems other than those required in dwelling units shall conform to Part 3.

SUBSECTION 9.32.2. GENERAL

9.32.2.1. RESERVED.

Corrosive fill

9.32.2.2. Metal pipes in contact with cinders or other corrosive material shall be protected by a heavy coating of bitumen or other corrosion protection.

SUBSECTION 9.32.3. WATER SUPPLY AND DISTRIBUTION

Potable water

9.32.3.1. Every dwelling unit shall be supplied with potable water from an approved public or community system where these systems are available.

Piping to facilities

9.32.3.2.(1) Where a piped water supply is available, piping for hot and cold water shall be connected to every kitchen sink, lavatory, bathtub, shower, slop sink and laundry area.

(2) Piping for cold water shall be run to every water closet and hose bib.

SUBSECTION 9.32.4. REQUIRED FACILITIES

Required facilities

9.32.4.1. A kitchen sink, lavatory, water closet and bathtub or shower stall shall be provided for every dwelling unit where a piped water supply is available.

Laundry space

9.32.4.2. Laundry facilities or a space for laundry facilities shall be provided in every dwelling unit, or grouped elsewhere in the building in a location conveniently accessible to occupants of every dwelling unit.

Hot water supply

9.32.4.3. Where a piped water supply is available a hot water supply shall be provided in every dwelling unit.

Floor drain

9.32.4.4. Where gravity drainage to a sewer, drainage ditch or dry well is possible, a floor drain shall be installed in a basement forming part of a dwelling unit.

9.32.4.5. A floor drain shall be provided in a public laundry room, and in a garbage room, incinerator room, boiler or heating room, serving more than 1 dwelling unit.

SUBSECTION 9.32.5. SEWAGE DISPOSAL

9.32.5.1. Wastes from every plumbing fixture shall be piped to the building sewer.

9.32.5.2. Building sewers shall discharge into a public sewage system where such system is available.

9.32.5.3. Where a public sewage system is not available, the building sewer shall discharge into a private sewage disposal system.

SUBSECTION 9.32.6. SERVICE WATER HEATING FACILITIES

Service water heating facilities

9.32.6.1. Where a hot water supply is required by Article 9.32.4.3., equipment shall be installed to provide to every dwelling unit an adequate supply of service hot water with a temperature range from 60°C to 75°C.

Distribution of service hot water

9.32.6.2. Service hot water may be distributed from a centrally located heater to supply the entire building or may be supplied by an individual service water heater for each dwelling unit.

Installation

9.32.6.3. Every service water heater and its installation shall conform to Part 6.

Storage tanks

9.32.6.4. Where storage tanks for service water heaters are of steel, they shall be coated with zinc, vitreous enamel (glass lined), hydraulic cement or other corrosion-resistant material.

Fuel-burning
service water
heaters

9.32.6.5. Fuel-burning service water heaters shall be connected to a chimney flue conforming to Section 9.21.

Heating coils

9.32.6.6. Heating coils of service water heaters shall not be installed in a flue or in the combustion chamber of a boiler or furnace heating a building.

SECTION 9.33 VENTILATION

SUBSECTION 9.33.1. SCOPE

Ventilation

9.33.1.1. This Section applies to the ventilation of rooms and spaces in residential occupancies by natural ventilation and mechanical ventilation where the rated fan capacity does not exceed $2\text{m}^3/\text{s}$.

Mechanical
ventilation

9.33.1.2. Where the rated fan capacity exceeds $2\text{m}^3/\text{s}$, mechanical ventilation shall conform to Part 6.

Ventilation

9.33.1.3 Ventilation of rooms and spaces in other than residential occupancies shall be in accordance with good engineering practice as described in the applicable documents referred to in Article 6.2.1.1.

Ventilation of
garages

9.33.1.4. A garage for parking more than 5 cars shall be ventilated in accordance with Part 6.

SUBSECTION 9.33.2. GENERAL

Ventilation of
residential
occupancies

9.33.2.1.(1) Rooms and spaces in buildings of residential occupancy shall be ventilated by natural means in accordance with Subsection 9.33.3. or by mechanical means in conformance with Subsection 9.33.4., except that where a dwelling unit is heated with other than fuel-fired equipment within the dwelling unit, a mechanical exhaust system of 1 or more fans or blowers having a total capacity of at least $0.05\text{ m}^3/\text{s}$ at a pressure differential of 2.5 mm of water shall be provided for each dwelling unit.

9.33.2.2. A space that contains a fuel-fired heating appliance shall have natural or mechanical means of supplying the required combustion air.

9.33.2.3. Where the ventilation system forms part of the heating system, Section 9.34 shall also apply.

Air
contaminants

9.33.2.4. Air contaminants released within buildings shall be removed insofar as possible at their points of origin and shall not be permitted to accumulate in unsafe concentrations.

Exhaust
ventilation
system

9.33.2.5. Every building in which dust, fumes, gases, vapour or other contaminants tend to create a fire or explosion hazard shall be provided with an exhaust ventilation system designed to conform with Part 6, and shall be provided with explosion relief devices and vents or other protective measures to conform with Part 3.

SUBSECTION 9.33.3. NATURAL VENTILATION

Minimum
natural
ventilation
area

9.33.3.1. The unobstructed ventilation area to the outdoors for rooms and spaces in residential buildings ventilated by natural means shall conform to Table 9.33.3.A. Where a vestibule opens directly off a living or dining room with a dwelling unit ventilation to the outdoors for such rooms may be through the vestibule.

Table 9.33.3.A.
Forming Part of Article 9.33.3.1.

NATURAL VENTILATION		
Location		Minimum Unobstructed Area
Within <u>dwelling unit</u>	Bathrooms or water-closet rooms	0.09 m ²
	Unfinished <u>basement</u> space	0.2 per cent of the floor area
	Dining rooms, living rooms, Bedrooms, kitchens, combined rooms, Dens, recreation rooms and all other finished rooms	0.28 m ² per room or combination of rooms
Other than within <u>dwelling unit</u>	Bathrooms or water-closet rooms	0.09 m ² per water- closet
	Sleeping areas	0.14 m ² per occupant
	Laundry rooms, kitchens, recreation rooms	4 per cent of the floor area
	Corridors, storage rooms and other similar public rooms or spaces	2 per cent of the floor area
	Unfinished <u>basement</u> space not used on a shared basis	0.2 per cent of the floor area
Column 1	2	3

Protection of
openings
supplying natural
ventilation

9.33.3.2. Openings for natural ventilation other than windows shall be constructed to provide protection from the weather and insects. Screening shall be of rust-proof material.

SUBSECTION 9.33.4. MECHANICAL VENTILATION

Mechanical
ventilation

9.33.4.1. Where rooms or spaces in dwelling units are provided with mechanical ventilation systems in lieu of natural ventilation as required in Article 9.33.3.1., the systems shall be capable of providing at least 1 air change per hour where summer cooling is not provided or at least half an air change per hour where summer cooling is provided.

Air from
dwelling unit

9.33.4.2. No air from any dwelling unit shall be circulated directly or indirectly to any other dwelling unit, public corridor or public stairway.

Exhaust ducts
from toilet
room and
kitchen

9.33.4.3.(1) Except for self-contained systems that serve individual dwelling units, exhaust ducts from rooms containing water closets, urinals, lavatories, showers or slop sinks, and exhaust ducts serving rooms containing cooking equipment, shall not be interconnected, and shall not be connected to duct systems serving other areas of the building, except at the inlet of the exhaust fan and where such a connection is made, devices shall be installed to prevent the circulation of exhaust air through the building when the fan is not operating.

(2) Except for wash basins (lavatories), the exhaust air provided shall be not less than $1.42 \text{ m}^3/\text{min}$ for each sanitary fixture listed in Sentence (1).

9.33.4.4. Where a vertical service space contains an exhaust duct that serves more than 1 fire compartment, the duct shall have a fan located at or near the exhaust outlet to ensure that the duct is under negative pressure, and such individual fire compartments shall not have fans that exhaust directly into the duct in the vertical service space.

Contamination
from exhaust
outlets

9.33.4.5. Air intakes shall be located so as to avoid contamination from exhaust outlets or other sources in concentrations greater than normal in the locality in which the building is located.

Exhaust
discharge

9.33.4.6.(1) Exhaust ducts shall discharge directly to the outdoors. Where the exhaust duct passes through or is adjacent to unheated space, the duct shall be insulated to prevent moisture condensation in the duct in accordance with Article 6.2.3.2.(6).

Access to
ventilation
equipment

9.33.4.7. Ventilation equipment shall be accessible for inspection, maintenance repair and cleaning. Kitchen exhaust ducts shall be designed and installed so that the entire duct can be cleaned where the duct is not equipped with a filter at the intake end.

Air intake
shield

9.33.4.8. Outdoor air intake and exhaust outlets shall be shielded from weather and insects. Screening shall be of rust-proof material.

9.33.4.9.(1) Outdoor air intake openings into the cold air return system shall be provided with a manually operated or automatic damper.

(2) Air intake opening larger than 127 mm diam shall be equipped with a manually operated closure if the system is gravity type, or an automatic closure if the system is mechanically operated.

9.33.4.10. Except as provided in Article 9.33.4.11., every ventilating duct shall conform to the requirements of Part 6 for supply ducts.

9.33.4.11. An exhaust duct that serves only a bathroom or water-closet room and that is contained entirely within a dwelling unit or space that is common to no other dwelling unit, may be of combustible material provided the duct is reasonably air tight and constructed of a material impervious to water.

9.33.4.12. Underground ventilating ducts shall be adequately drained. Such ducts shall have no sewer connections and shall be provided with access for inspection and cleaning.

SECTION 9.34 HEATING AND AIR-CONDITIONING

SUBSECTION 9.34.1. GENERAL

Central heating
systems

9.34.1.1. The design and installation of central heating systems shall conform to the requirements in Part 6 and to this Section.

Air-conditioning
systems

9.34.1.2. The design and installation of air-conditioning systems shall conform to the requirements in Part 6.

Temperature in
buildings

9.34.1.3.(1) Except as provided in Article 9.34.1.4., residential buildings intended for occupancy in the winter months on a continuing basis shall be insulated and equipped with heating facilities capable of maintaining an indoor air temperature of 22°C at the outside winter design temperature.

(2) All other buildings intended for occupancy in the winter months on a continuing basis should be insulated and shall be equipped with heating facilities to maintain a minimum indoor air temperature of 18°C or commensurate with the use of the building at the outside winter design temperature.

(3) The outside conditions to be used in designing heating, ventilating and air-conditioning systems shall be the appropriate values for the municipality as set in Section 2.5 Climatic Data, using 2 1/2 per cent design temperature criteria.

Temperature in
basement

9.34.1.4.(1) Heating facilities shall be provided which shall be capable of maintaining a temperature of not less than 18°C in an unfinished basement in buildings of residential occupancy.

(2) Where crawl spaces are required to be heated, the heating facilities shall be capable of maintaining a temperature of not less than 15°C.

9.34.1.5. A heating system using solid fuel shall not be connected to a heating system incorporating an oil-burning or gas-burning appliance or to an electrical heating device unless it can be shown that the total system is designed so that unsafe temperatures or water pressures will not occur with the operation of all or part of the combined system.

9.34.1.6. RESERVED.

SUBSECTION 9.34.2. STOVES, RANGES AND SPACE HEATERS BURNING SOLID FUEL

Specification

9.34.2.1.(1) Stoves, ranges and space heaters using solid fuels shall conform to ULC S627/CSA B366.2, "Standard for Space Heaters for Use with Solid Fuels."

(2) The installation of solid fuel burning appliances shall comply with CAN3-B365, "Installation Code for Solid Fuel Burning Appliances & Equipment," and the manufacturer's installation instructions.

9.34.2.2. RESERVED.

9.34.2.3. RESERVED.

9.34.2.4. RESERVED.

9.34.2.5.(1) Except where walls are protected by other laboratory certified products, where protection to combustible material is provided as described in Table 9.34.2.A., the specified clearance may be reduced in conformance to this Table.

(2) Protection described in Table 9.34.2.A., consisting of sheet material spaced out from a wall, shall have at least 25 mm edge clearance along the bottom and 75 mm along the top.

(3) The protection shall extend 300 mm beyond both the top and each edge of the appliance.

(4) Protection spaced out from a ceiling shall have 75 mm edge clearance on at least 3 sides.

Table 9.34.2.A.
Forming Part of Article 9.34.2.5.

CLEARANCE REDUCTIONS WITH PROTECTION		
Minimum Protection for <u>Combustible</u> Material	Percentage Reduction from Minimum Clearances in Table 9.34.2.B. (See Appendix)	
	Sides and Rear	Top
6 mm asbestos millboard spaced out 25 mm by noncombustible spacers	50%	33%
0.33 mm sheet metal on 6 mm asbestos millboard	50%	33%
0.33 mm sheet metal spaced out 25 mm by noncombustible spacers	67%	50%
Solid brick wall spaced out at least 25 mm	50%	N/A
Ceramic tiles or equivalent noncombustible material on a noncombustible framework and spaced out at least 25 mm by noncombustible spacers	50%	33%
Ceramic tiles on 0.33 sheet metal backing spaced out 25 mm by noncombustible spacers	67%	50%
Column 1	2	3

9.34.2.6. RESERVED.

9.34.2.7. RESERVED.

9.34.2.8. A combustible floor beneath a solid-fuel fired stove, range or space heater of a type in which flame or hot gases do not come in contact with its base and mounted on legs that provide a clear space of at least 100 mm in height shall be protected by a floor pad consisting of a layer of sheet metal at least 0.55 mm thick over 6 mm asbestos cement board or other noncombustible material.

9.34.2.9. RESERVED.

9.34.2.10. RESERVED.

9.34.2.11. RESERVED.

9.34.2.12. RESERVED.

SUBSECTION 9.34.3. FIRE PROTECTION FOR GAS AND ELECTRIC RANGES

9.34.3.1. Except as provided in Article 9.34.3.2., a vertical clearance of at least 750 mm shall be provided above the elements or burners of electric- and gas-fired domestic ranges.

9.34.3.2. Where cabinets located above the elements or burners referred to in Article 9.34.3.1. are noncombustible or are protected with asbestos millboard at least 6 mm thick, covered with sheet metal not less than 0.33 mm thick, or by a metal hood with a 125 mm projection beyond the upper cabinets, the vertical clearance may be reduced to 600 mm.

9.34.3.3. Combustible wall framing members within 450 mm of the area where the range is to be located shall be protected above the level of the heating elements by material providing fire resistance at least equivalent to a 9.5 mm thickness of gypsum board.

SECTION 9.35 ELECTRICAL FACILITIES

SUBSECTION 9.35.1. GENERAL

9.35.1.1. RESERVED.

Electrical
services
required

9.35.1.2. Where electrical services are available, electrical facilities shall be provided for every building in conformance with this Section.

Protection of
electrical
equipment

9.35.1.3. Entrance switches, meters, panel boxes, splitter boxes, time clocks and other similar equipment shall not be located in any public area unless adequate precautions are taken to prevent interference with the equipment.

Recessed
lighting
fixtures

9.35.1.4. Recessed lighting fixtures shall not be located in insulated ceilings unless the fixtures are designed for such installations.

SUBSECTION 9.35.2. LIGHTING OUTLETS

Exterior
lighting

9.35.2.1. An exterior lighting outlet with fixture controlled by a wall switch located within the building shall be provided at every entrance to buildings of residential occupancy.

Requirements
for lighting
outlets

9.35.2.2. Except as provided in Article 9.35.2.3., a lighting outlet with fixture controlled by a wall switch shall be provided in kitchens, bedrooms, living rooms, utility rooms, laundry rooms, dining rooms, bathrooms, water-closet rooms, vestibules and hallways in dwelling units.

9.35.2.3. Where a receptacle controlled by a wall switch is provided in bedrooms or living rooms, such rooms need not conform to the requirements in Article 9.35.2.2.

Lights in
stairways

9.35.2.4. Every stairway shall be lighted. Except as provided in Article 9.35.2.5., 3-way wall switches located at the head and foot of every stairway shall be provided to control at least 1 lighting outlet with fixture for stairways with 4 or more risers in dwelling units.

Switch at head
of stairs

9.35.2.5. The stairway lighting for basements that do not contain finished space nor lead to an outside entrance or built-in garage and which serve not more than 1 dwelling unit may be controlled by a single switch located at the head of the stairs.

Unfinished
basements

9.35.2.6. A lighting outlet with fixture shall be provided for each 30 m² or fraction thereof of floor area in unfinished basements. The outlet nearest the stairs shall be controlled by a wall switch located at the head of the stairs.

Storage room

9.35.2.7. A lighting outlet with fixture shall be provided in storage rooms.

Lighting of
garages and
carports

9.35.2.8. A lighting outlet with fixture shall be provided for an attached, built-in or detached garage or carport. Such outlet shall be controlled by a wall switch near the doorway where the fixture is

ceiling mounted above an area normally occupied by a parked car; otherwise a switched lampholder may be used. Where a carport is lighted by a light at the entrance to a dwelling unit, additional carport lighting is not required.

Lighting in public areas

9.35.2.9. Every public or service area in buildings shall be provided with lighting outlets with fixtures controlled by a wall switch or panel to illuminate every portion of such areas. When provided by incandescent lighting, illumination shall conform to Table 9.35.2.A. When other types of lighting are used, illumination equivalent to that shown in Table 9.35.2.A. shall be provided.

Table 9.35.2.A.
Forming Part of Article 9.35.2.9.

MINIMUM LIGHTING FOR PUBLIC AREAS		
Room or Space	lx	W/m ² of floor area (Incandescent Lighting)
Storage rooms	50	5
<u>Service rooms</u> and laundry areas	200	20
Garages	50	5
Public water-closet rooms	100	10
<u>Public corridors</u> and stairways	50	5
Service hallways and stairways	50	5
Recreation rooms	100	10
Column 1	2	3

SUBSECTION 9.35.3. SERVICE ENTRANCE REQUIREMENTS

9.35.3.1.(1) Except in the case of externally mounted read-outs, each new residential consumer service of 200 amperes or less shall have a meter mounting device located outdoors in an accessible location.

(2) For the purposes of this subsection, the front of the building is the side nearest the utility distribution line.

9.35.3.2. Meter mounting devices shall be installed on the wall of the building so that the midpoint of

the meter after installation will be 1.75 m plus or minus 100 mm from finished grade, or, where this is not possible, the meter may be installed on a separate support.

9.35.3.3. Meter mounting devices shall be located not more than 3.00 m back from the front of the single family and semi-detached homes.

9.35.3.4.(1) For an underground supply, the bottom of the consumer service standpipe shall be located not more than 3.00 m from the corner of the building.

(2) For an overhead supply, the top of the consumer service standpipe shall be located not more than 3.00 m from the corner of the building except that where this location does not permit a 4.50 m clearance at the point of attachment of the service conductors to the building, the top of the standpipe may be extended to a point not more than half way along the building.

9.34.3.5.(1) The meter mounting device shall be

- (a) one hundred ampere capacity except when the service equipment is to be greater;
- (b) standardized for each service size; and
- (c) capable of accepting 2 in. IPS conduit of steel, aluminum, copper or PVC if intended for underground service entrance.

9.35.3.6.(1) For consumer services supplied underground,

- (a) a 2 in. IPS steel, aluminum, copper or PVC conduit shall be attached to the bottom of the meter-mounting device and shall terminate in the earth at a point at least 900 mm below grade and a conduit bushing shall be attached to the conduit in the earth.
- (b) the conductors on the line side of the meter and those on the load side of the meter shall not be installed in the same conduit.

SECTION 9.36 GARAGES AND CARPORTS

SUBSECTION 9.36.1. SCOPE

Garages and
carports

9.36.1.1. This Section applies to garages and carports serving not more than 1 dwelling unit.

9.36.1.2. The construction of a garage or carport shall conform to the requirements for other buildings in this Part except as provided in this Section.

SUBSECTION 9.36.2. GENERAL

Roofed
enclosures use
as parking for
cars

9.36.2.1. Where a roofed enclosure used for the storage or parking of a car or cars has more than 60 per cent of the total perimeter enclosed by walls, doors or windows, the enclosure shall be considered a garage.

SUBSECTION 9.36.3. FOUNDATIONS

Foundations for
carports and
garages

9.36.3.1. Except as permitted in this Subsection, foundations conforming to Sections 9.12 and 9.15 shall be provided for the support of carport and garage super-structures, including that portion beneath garage doors.

Foundation in
clay soils

9.36.3.2.(1) In clay-type soils subject to significant movement with a change in soil moisture content, the foundation depth of carports or garages connected to a dwelling unit by a breezeway shall be approximately the same depth as the main building foundation.

(2) Where slab-on-grade construction is used, a construction joint shall be provided between the main building slab and the garage or breezeway or carport slab.

(3) Foundations for attached unheated garages or carports shall be below frost level, except as provided in Section 9.12.

Wood supports
for detached
garages

9.36.3.3. Detached garages of less than 50 m² floor area and not more than 1 storey in height may be supported on wood mud sills provided the garage is not of masonry or masonry veneer construction.

Piers used as
supports

9.36.3.4.(1) Piers for the support of carport columns shall extend not less than 150 mm above ground level.

(2) Piers shall project not less than 25 mm beyond the base of the column but in no case be less than 190 mm by 190 mm in size.

SUBSECTION 9.36.4. WALLS AND COLUMNS

Walls and columns
in garages

9.36.4.1. Interior finish need not be applied to garage and carport walls.

Wood columns

9.36.4.2. Columns for garages and carports shall conform to Section 9.17, except that 89 mm by 89 mm wood columns may be used.

Anchoring garages and carports to foundations

9.36.4.3. Garage or carport walls and columns shall be anchored to the foundation to resist wind uplift in conformance with Subsection 9.23.6., except that where a garage is supported on the surface of the ground, ground anchors shall be provided to resist wind uplift.

SECTION 9.37 COTTAGES

SUBSECTION 9.37.1. SCOPE

9.37.1.1. This Section applies to buildings of residential occupancy used or intended to be used as seasonal recreational buildings.

9.37.1.2. Such buildings shall comply with all the requirements of this Part, except where they are specifically exempted in this Section.

SUBSECTION 9.37.2. GENERAL

9.37.2.1. Except as provided in Article 9.37.3.1. and Subsection 9.10.15., buildings used or intended to be used as seasonal recreational buildings need not comply with Sections 9.5. to 9.7 and 9.9 to 9.11.

Flooring

9.37.2.2. Flooring need not comply with Section 9.31., but tight fitting floors shall be provided to support the live and dead loads.

Services and finishings

9.37.2.3. Thermal insulation, vapour barrier, interior finishes, plumbing, heating, air-conditioning and electrical facilities, need not be provided, but where any of these are provided, they shall comply with the requirements of this Part.

9.37.2.4. Where heating and air-conditioning are provided, Articles 9.34.1.3. and 9.34.1.4. need not be complied with.

9.37.2.5.(1) Continuous perimeter foundation walls are not required, but when they are provided, they shall comply with the requirements of this Part.

(2) Where unit masonry columns are used, the height of such columns shall not exceed,

- (a) in the case of hollow masonry units, 4 times the least dimension of the units;

- (b) in the case of solid masonry units or hollow units with voids filled with concrete, 10 times the least dimension of the column; or
- (c) where the column is reinforced with at least four 13 mm diameter bars and filled with concrete, 18 times the least dimension of the column.

(3) Columns in excess of the height limitations of Clause (a), (b), or (c) shall be designed in accordance with Part 4.

Waterproofing
and dampproofing

9.37.2.6. Where foundations below ground level and concrete floors on grade are used, they shall comply with Section 9.13, "Waterproofing and Dampproofing."

SUBSECTION 9.37.3. TOURIST ACCOMMODATION

9.37.3.1. Where buildings are used or intended to be used for seasonal tourist accommodation or for rent, they shall comply with Sections 9.5 to 9.8 in addition to the requirements of this Section.

SECTION 9.38 LOG CONSTRUCTION

SUBSECTION 9.38.1. GENERAL

9.38.1.1. Logs which are sound and free of fractures may be used for foundations, beams, posts and similar members providing it can be shown by a structural analysis or tests or previous experience that the strength of the member is adequate for its intended purposes.

9.38.1.2. The portion of any log coming in contact with masonry or concrete at or below grade shall be treated with a preservative.

9.38.1.3. All exterior joints between logs shall be rendered watertight by methods such as machine joints, oakum packing, cement parging, chinking, caulking or a combination of these.

SUBSECTION 9.38.2. WALLS

9.38.2.1. Walls may be built of natural or manufactured logs.

9.38.2.2. Walls made of logs in a horizontal position shall have inter-locking inter-sections which will prevent the collection of water in the joints, or the horizontal logs shall butt to a vertical corner post to which the horizontal logs shall be firmly attached.

9.38.2.3. Each log in a horizontal position shall be scribed as close as possible to its bearer and fastened to the bearer in at least three places, throughout its length, by dowels, continuous machined joints, vertical framing members or interlocking intersections or any combination of these, but in no case shall the distance between fastenings exceed 1.80 m.

9.38.2.4. Each log in a wall built of vertical logs shall be scribed to fit as closely as possible to the adjacent logs.

9.38.2.5. Logs used in a vertical position shall have a plate at the top and a plate at the bottom, which plates are at least as wide as the largest end diameter of any of the logs.

SUBSECTION 9.38.3. LINTELS

9.38.3.1. Logs placed in vertical position shall be supported over window and door openings by lintels meeting the requirements of Table 9.23.12.A.

9.38.3.2. At every opening in a wall made of logs in a horizontal position where shrinkage can occur there shall be a clearance between the rough buck header and the lintel log of not less than 13 mm in width for each 300 mm of height to allow for settlement.

SECTION 9.39 THERMAL DESIGN

SUBSECTION 9.39.1. SCOPE

9.39.1.1.(1) This Section applies to the thermal design of a building of residential occupancy where such design is an alternative to the thermal insulation requirements of Section 9.26.

SUBSECTION 9.39.2. GENERAL

9.39.2.1. The materials for, and the installation of, thermal insulation and vapour barrier protection shall conform to Section 9.26.

9.39.2.2. Foamed plastic thermal insulation shall be protected in conformance with Section 9.30.

9.39.2.3. Crawl spaces shall comply to Section 9.18.

9.39.2.4. Roof spaces shall comply to Section 9.19.

9.39.2.5. Ventilation requirements shall comply to Section 9.33 except as provided in Subsection 9.39.7.

9.39.2.6. Heating and air conditioning requirements shall comply to Section 9.34.

SUBSECTION 9.39.3. THERMAL RESISTANCE OF ASSEMBLIES

9.39.3.1. Except as provided in Articles 9.39.3.2. to 9.39.3.6., and except for doors, windows, skylights and other closures, the thermal resistance of each building assembly through any portion that does not include framing or furring shall conform to Table 9.39.3.A.

9.39.3.2. Except as provided in Article 9.39.3.3., the thermal resistance of the insulated portion of a building assembly incorporating metal framing elements, such as steel studs and steel joists, that act as thermal bridges to facilitate heat flow through the assembly, shall be 20 per cent greater than the values shown in Table 9.39.3.A., unless it can be shown that the heat flow is not greater than the heat flow through a wood frame assembly of the same thickness.

Table 9.39.3.A.
Forming Part of Article 9.39.3.1.

MINIMUM THERMAL RESISTANCE (RSI-VALUE) m ² °C/W		
Building Assembly	Maximum Number of Celsius Degree Days	
	Up to 5000	Above 5000
Exposed walls	3.0	3.4
Exposed roof or ceiling		
- frame	5.6	6.4
- solid	3.0	3.4
Foundation walls		
- solid	1.5	1.5
- frame	3.0	3.4
Exposed floors		
- frame	4.7	4.7
- solid	3.0	3.4
Slab-on-ground at grade		
- unheated	1.3	1.7
- heated	1.7	2.1
Column 1	2	3

Notes to Table 9.39.3.A.:

- (1) "Exposed" means exposed to outdoor temperature or unheated area.
- (2) "Solid" means brick concrete blocks or concrete.
- (3) "Frame" means a wood or steel stud frame to which interior and exterior cladding is applied.
- (4) "RSI-value" shown for slab-on-ground at grade is for rigid insulation.
- (5) Slab-on-ground at grade - "heated" means a concrete floor containing heating ducts or pipes, "unheated" means a concrete floor not containing heating ducts or pipes.

9.39.3.3. Article 9.39.3.2. for building assemblies incorporating thermal bridges does not apply where the thermal bridges are insulated to restrict heat flow through the thermal bridges by a material providing a thermal resistance at least equal to 25 per cent of the thermal resistance required for the insulated portion of the assembly in Article 9.39.3.1.

9.39.3.4. The thermal resistance of a building assembly may be reduced by not more than 20 per cent from that required in Articles 9.39.3.1. and 9.39.3.2., and the amount of glazing may be increased to more than permitted in Article 9.39.4.3., where it can be shown that the total calculated heat loss from the building enclosure does not exceed the heat loss that would result if the enclosure were constructed in conformance with the minimum thermal resistance requirements in Articles 9.39.3.1. and 9.39.3.2. and with the maximum amount of glazing permitted in Article 9.39.4.3., provided no allowance is made for solar heat gains or for the orientation of the glazing as described in Article 9.39.4.5.

9.39.3.5. The thermal resistance values in Article 9.39.3.1. and 9.39.3.2. for roof or ceiling assemblies separating heated space from unheated space or the exterior may be reduced near the eaves to the extent made necessary by the roof slope and required ventilation clearances, except that the thermal resistance at the location directly above the inner surface of the exterior wall shall be at least $2.1 \text{ m}^2 \text{ }^\circ\text{C/W}$.

9.39.3.6. The thermal resistance values required in Article 9.39.3.1. may be reduced to take into account the effect of thermal inertia resulting from the mass of the building in conformance with Building Research Note No. 126, published by the Division of Building Research, National Research Council of Canada, January 1978.

9.39.3.7. Insulation applied to the exterior of a foundation wall or slab-on-ground floor shall extend down at least 600 mm below the adjacent exterior ground level or shall extend down and outward from the floor or wall for a total distance of at least 600 mm measured from the adjacent finished ground level.

9.39.3.8. Insulation applied to the interior of a foundation wall shall extend from the underside of the flooring above such walls, down to at least 600 mm below the exterior adjacent ground level.

9.39.3.9. Every foundation wall face having more than 50 per cent of its area exposed to outside air and those parts of foundation walls of wood-frame construction above exterior ground level shall have a thermal resistance conforming to the requirement for wall assemblies above ground level in Table 9.39.3.A.

SUBSECTION 9.39.4. GLAZING

9.39.4.1. Except as provided in Articles 9.39.4.2. and 9.39.4.4., all glazing that separates heated space from unheated space or the exterior shall have a thermal resistance of at least $0.30 \text{ m}^2 \text{ }^\circ\text{C/W}$.

9.39.4.2. Where an enclosed unheated space, such as a sun porch, enclosed verandah or vestibule, is separated from a heated space by glazing, the unheated enclosure may be considered to provide a thermal resistance of $0.16 \text{ m}^2 \text{ }^\circ\text{C/W}$, or the equivalent of one layer of glazing.

9.39.4.3. Except as provided in Articles 9.39.4.4. and 9.39.4.5., the total area of glazing, including glazing for doors and skylights, that separates heated space from unheated space or the exterior shall not exceed 20 per cent of the floor area of the storey served by the glazed areas and shall not exceed 40 per cent of the total area of the walls of that storey separating heated space from unheated space or the exterior. (In the case of a sloping wall, the area of the opaque portion of the wall is calculated as its projected area on a vertical plane.)

9.39.4.4. Where the thermal resistance of glazing is different from that required in Articles 9.39.4.1. and 9.39.4.2., the area of such glazing for the purpose of applying Article 9.39.4.3. may be assumed as being equal to the actual area multiplied by the ratio of the required thermal resistance divided by the actual thermal resistance of the glazing.

9.39.4.5. Except as provided in Article 9.39.4.6., the area of glazing that contains clear glass or that has a shading coefficient of more than 0.70 that is unshaded in the winter and faces a direction within 45° of due South may be assumed to be 50 per cent of its unshaded area in calculating the maximum area of glazing in Articles 9.39.4.3. and 9.39.4.4. provided the building is designed with a system that is capable of distributing the solar heat gain from such glazed areas throughout the building. For the purpose of determining whether or not the glazing is shaded in the winter, the shading shall be calculated using the noon sun angles of December 21.

9.39.4.6. Article 9.39.4.5. shall not apply where the building is designed to be cooled unless the glazing described in 9.39.4.5. is shaded in the summer with exterior devices. For the purpose of determining whether or not the glazing is shaded in the summer, the shading shall be calculated using the noon sun angles of June 21.

SUBSECTION 9.39.5. DOORS AND WINDOWS

9.39.5.1. Air curtains shall not be used in place of exterior doors.

9.39.5.2. Except for doors used primarily to facilitate the movement of vehicles or handling of material, infiltration around doors shall conform to the appropriate requirements in Subsection 9.39.6.

9.39.5.3. Except for doors on enclosed unheated vestibules, all doors separating heated space from the outside shall conform to the appropriate requirements of Section 9.6.

9.39.5.4. Windows shall conform to the appropriate requirements of Section 9.7.

SUBSECTION 9.39.6. INFILTRATION

9.39.6.1. Windows separating heated space from unheated space or the exterior shall be designed to limit the rate of air infiltration to not more than $0.775 \text{ dm}^3/\text{s}$ for each metre of sash crack when tested at pressure differential of 75 Pa in conformance with ASTM E283-73, "Standard Method of Test for Rate of Air Leakage through Exterior Windows, Curtain Walls and Doors."

9.39.6.2. Manually operated exterior sliding glass door assemblies that separate heated space from unheated space or the exterior shall be designed to limit air infiltration to not more than $2.5 \text{ dm}^3/\text{s}$ for

each square metre of door area when tested in conformance with Article 9.39.6.1.

9.39.6.3. Except where the door is weather-stripped on all edges and protected with a storm door or by an enclosed unheated space, exterior swing type door assemblies for dwelling units, individually rented hotel and motel rooms and suites shall be designed to limit the rate of air infiltration to not more than $6.35 \text{ dm}^3/\text{s}$ for each square metre of door area when tested in conformance with Article 9.39.6.1.

9.39.6.4. Door assemblies other than those described in Articles 9.39.6.2. and 9.39.6.3. that separate heated space from unheated space or the exterior shall be designed to limit the rate of air infiltration to not more than $17.0 \text{ dm}^3/\text{s}$ for each metre of door crack when tested in conformance with Article 9.39.6.1.

9.39.6.5. Caulking material to reduce air infiltration shall conform to the requirements in Subsection 9.28.4.

9.39.6.6. The junction between the sill plate and the foundation, joints between exterior wall panels and any other location where there is a possibility of air leakage into heated spaces in a building through the exterior walls, such as at utility service entrances, shall be caulked, gasketed or sealed to restrict such air leakage.

9.39.6.7. Air leakage between heated space and adjacent roof or attic space caused by the penetration of services shall be restricted in conformance with the requirements of Subsection 9.26.5.

SUBSECTION 9.39.7. VENTILATION

9.39.7.1. Fresh air for the ventilation of rooms and spaces in buildings of residential occupancy shall be provided at a rate of at least 0.5 air change per hour by a combination of natural and mechanical ventilation.

Table A-1
Forming Part of Article 9.23.4.1.

**CEILING JOISTS — ATTIC NOT ACCESSIBLE BY A STAIRWAY
(LIVE LOAD 0.5 kN/m²)**

Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other ceilings		
			Joist Spacing			Joist Spacing		
			300 mm	400 mm	600 mm	300 mm	400 mm	600 mm
			m	m	m	m	m	m
Douglas Fir-Larch (includes Douglas Fir and Western Larch)	Select structural	38 x 89	3.40	3.09	2.69	3.89	3.53	3.09
		38 x 140	5.34	4.85	4.24	6.11	5.55	4.85
		38 x 184	7.04	6.40	5.59	8.06	7.32	6.40
		38 x 235	8.98	8.16	7.13	10.28	9.34	8.16
		38 x 286	10.93	9.93	8.67	12.51	11.36	9.93
	No. 1	38 x 89	3.40	3.09	2.69	3.89	3.53	3.09
		38 x 140	5.34	4.85	4.24	6.11	5.55	4.85
		38 x 184	7.04	6.40	5.59	8.06	7.32	6.40
		38 x 235	8.98	8.16	7.13	10.28	9.34	8.16
		38 x 286	10.93	9.93	8.67	12.51	11.36	9.93
	No. 2	38 x 89	3.28	2.98	2.60	3.76	3.41	2.98
		38 x 140	5.16	4.69	4.10	5.91	5.37	4.49
		38 x 184	6.81	6.18	5.40	7.79	7.08	5.92
		38 x 235	8.68	7.89	6.89	9.94	9.03	7.56
		38 x 286	10.56	9.60	8.38	12.09	10.99	9.19
	No. 3	38 x 89	3.15	2.82	2.31	3.26	2.82	2.31
		38 x 140	4.81	4.16	3.40	4.81	4.16	3.40
		38 x 184	6.34	5.49	4.48	6.34	5.49	4.48
		38 x 235	8.09	7.01	5.72	8.09	7.01	5.72
		38 x 286	9.84	8.52	6.96	9.84	8.52	6.96
	Construction	38 x 89	3.15	2.86	2.50	3.61	3.23	2.64
	Standard	38 x 89	2.81	2.43	1.98	2.81	2.43	1.98
	Utility	38 x 89	1.91	1.66	1.35	1.91	1.66	1.35
	Select structural	38 x 89	3.27	2.97	2.60	3.75	3.40	2.97
		38 x 140	5.15	4.67	4.08	5.89	5.35	4.64
		38 x 184	6.78	6.16	5.38	7.77	7.06	6.12
		38 x 235	8.66	7.87	6.87	9.91	9.00	7.81
		38 x 286	10.53	9.57	8.36	12.06	10.95	9.50
	No. 1	38 x 89	3.27	2.97	2.60	3.75	3.40	2.95
		38 x 140	5.15	4.67	4.08	5.89	5.28	4.31
		38 x 184	6.78	6.16	5.38	7.77	6.96	5.68
		38 x 235	8.66	7.87	6.87	9.91	8.89	7.25
		38 x 286	10.53	9.57	8.36	12.06	10.81	8.82

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Table A-1 (Cont'd)
Forming Part of Article 9.23.4. 1.

CEILING JOISTS — ATTIC NOT ACCESSIBLE BY A STAIRWAY (LIVE LOAD 0.5 kN/m²)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other ceilings		
			Joist Spacing			Joist Spacing		
			300 mm	400 mm	600 mm	300 mm	400 mm	600 mm
			m	m	m	m	m	m
Hem-Fir (includes Western Hemlock and Amabilis Fir)	No. 2	38 x 89	3.16	2.87	2.51	3.62	3.28	2.67
		38 x 140	4.97	4.51	3.87	5.47	4.74	3.87
		38 x 184	6.55	5.95	5.10	7.21	6.25	5.10
		38 x 235	8.36	7.60	6.51	9.21	7.97	6.51
		38 x 286	10.17	9.24	7.92	11.20	9.70	7.92
	No. 3	38 x 89	2.81	2.43	1.98	2.81	2.43	1.98
		38 x 140	4.15	3.59	2.93	4.15	3.59	2.93
		38 x 184	5.47	4.74	3.87	5.47	4.74	3.87
		38 x 235	6.98	6.05	4.94	6.98	6.05	4.94
		38 x 286	8.49	7.36	6.01	8.49	7.36	6.01
	Construct-ion	38 x 89	3.04	2.76	2.29	3.23	2.80	2.29
	Standard	38 x 89	2.42	2.10	1.71	2.42	2.10	1.71
	Utility	38 x 89	1.66	1.43	1.17	1.66	1.43	1.17
Eastern Hemlock Tamarack (includes Eastern Hemlock and Tamarack)	Select structural	38 x 89	3.12	2.83	2.47	3.57	3.24	2.83
		38 x 140	4.90	4.45	3.89	5.61	5.10	4.45
		38 x 184	6.46	5.87	5.13	7.40	6.72	5.87
		38 x 235	8.25	7.49	6.55	9.44	8.58	7.49
		38 x 286	10.03	9.12	7.96	11.49	10.43	9.12
	No. 1	38 x 89	3.12	2.83	2.47	3.57	3.24	2.83
		38 x 140	4.90	4.45	3.89	5.61	5.10	4.45
		38 x 184	6.46	5.87	5.13	7.40	6.72	5.87
		38 x 235	8.25	7.49	6.55	9.44	8.58	7.49
		38 x 286	10.03	9.12	7.96	11.49	10.43	9.12
	No.2	38 x 89	3.01	2.73	2.38	3.44	3.13	2.73
		38 x 140	4.73	4.29	3.75	5.41	4.92	4.29
		38 x 184	6.23	5.66	4.94	7.13	6.48	5.66
		38 x 235	7.95	7.22	6.31	9.10	8.27	7.22
		38 x 286	9.67	8.79	7.68	11.07	10.06	8.79
	No. 3	38 x 89	2.90	2.63	2.22	3.15	2.72	2.22
		38 x 140	4.55	4.00	3.26	4.62	4.00	3.26
		38 x 184	6.01	5.27	4.30	6.09	5.27	4.30
		38 x 235	7.66	6.73	5.49	7.77	6.73	5.49
		38 x 286	9.32	8.18	6.68	9.45	8.18	6.68

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Table A-1 (Cont'd)
Forming Part of Article 9.23.4. 1.

**CEILING JOISTS — ATTIC NOT ACCESSIBLE BY A STAIRWAY
(LIVE LOAD 0.5 kN/m²)**

Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other ceilings		
			Joist Spacing			Joist Spacing		
			300 mm	400 mm	600 mm	300 mm	400 mm	600 mm
			m	m	m	m	m	m
	Construct-ion	38 x 89	2.90	2.63	2.30	3.32	3.01	2.55
	Standard	38 x 89	2.67	2.31	1.89	2.67	2.31	1.89
	Utility	38 x 89	1.86	1.61	1.32	1.86	1.61	1.32
Coast Species (includes Douglas Fir Western Larch, Western Hemlock, Amabilis Fir and Coast Sitka Spruce)	Select structural	38 x 89	3.27	2.97	2.60	3.75	3.40	2.97
		38 x 140	5.15	4.67	4.08	5.89	5.35	4.59
		38 x 184	6.78	6.16	5.38	7.77	7.06	6.05
		38 x 235	8.66	7.87	6.87	9.91	9.00	7.73
		38 x 286	10.53	9.57	8.36	12.06	10.95	9.40
	No. 1	38 x 89	3.27	2.97	2.60	3.75	3.40	2.92
		38 x 140	5.15	4.67	4.08	5.89	5.22	4.26
		38 x 184	6.78	6.16	5.38	7.77	6.88	5.61
		38 x 235	8.66	7.87	6.87	9.91	8.78	7.17
		38 x 286	10.53	9.57	8.36	12.06	10.68	8.72
	No. 2	38 x 89	3.16	2.87	2.51	3.62	3.23	2.64
		38 x 140	4.97	4.51	3.81	5.39	4.67	3.81
		38 x 184	6.55	5.95	5.02	7.10	6.15	5.02
		38 x 235	8.36	7.60	6.41	9.06	7.85	6.41
		38 x 286	10.17	9.24	7.79	11.03	9.55	7.79
	No. 3	38 x 89	2.78	2.40	1.96	2.78	2.40	1.96
		38 x 140	4.10	3.55	2.89	4.10	3.55	2.89
		38 x 184	5.40	4.68	3.82	5.40	4.68	3.82
		38 x 235	6.89	5.97	4.87	6.89	5.97	4.87
		38 x 286	8.38	7.26	5.93	8.38	7.26	5.93
	Construct-ion	38 x 89	3.04	2.75	2.24	3.18	2.75	2.24
	Standard	38 x 89	2.38	2.06	1.68	2.38	2.06	1.68
	Utility	38 x 89	1.66	1.43	1.17	1.66	1.43	1.17
	Select structural	38 x 89	3.09	2.80	2.45	3.53	3.21	2.80
		38 x 140	4.85	4.41	3.85	5.55	5.05	4.41
		38 x 184	6.40	5.81	5.08	7.32	6.65	5.81
		38 x 235	8.16	7.41	6.48	9.34	8.49	7.41
		38 x 286	9.93	9.02	7.88	11.36	10.33	9.02

Table A-1 (Cont'd)
Forming Part of Article 9.23.4. 1.

CEILING JOISTS — ATTIC NOT ACCESSIBLE BY A STAIRWAY (LIVE LOAD 0.5 kN/m²)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other ceilings		
			Joist Spacing			Joist Spacing		
			300 mm	400 mm	600 mm	300 mm	400 mm	600 mm
			m	m	m	m	m	m
Spruce-Pine-Fir (includes Spruce (all species except Coast Sitka Spruce), Lodgepole Pine, Balsam Fir and Alpine Fir)	No. 1	38 x 89	3.09	2.80	2.45	3.53	3.21	2.80
		38 x 140	4.85	4.41	3.85	5.55	5.05	4.18
		38 x 184	6.40	5.81	5.08	7.32	6.65	5.51
		38 x 235	8.16	7.41	6.48	9.34	8.49	7.03
		38 x 286	9.93	9.02	7.88	11.36	10.33	8.55
	No. 2	38 x 89	2.98	2.71	2.37	3.41	3.10	2.59
		38 x 140	4.69	4.26	3.72	5.30	4.59	3.75
		38 x 184	6.18	5.62	4.91	6.99	6.05	4.94
		38 x 235	7.89	7.17	6.26	8.92	7.73	6.31
		38 x 286	9.60	8.72	7.62	10.85	9.40	7.67
	No. 3	38 x 89	2.74	2.37	1.94	2.74	2.37	1.94
		38 x 140	4.04	3.50	2.85	4.04	3.50	2.85
		38 x 184	5.33	4.61	3.76	5.33	4.61	3.76
		38 x 235	6.80	5.89	4.80	6.80	5.89	4.80
		38 x 286	8.27	7.16	5.84	8.27	7.16	5.84
	Construction	38 x 89	2.87	2.61	2.20	3.12	2.70	2.20
	Standard	38 x 89	2.34	2.03	1.66	2.34	2.03	1.66
	Utility	38 x 89	1.60	1.39	1.13	1.60	1.39	1.13
Western Cedar (includes Western Red Cedar and Pacific Coast Yellow Cedar)	Select Structural	38 x 89	2.97	2.70	2.36	3.40	3.09	2.70
		38 x 140	4.67	4.24	3.71	5.35	4.86	4.24
		38 x 184	6.16	5.59	4.89	7.05	6.40	5.59
		38 x 235	7.86	7.14	6.24	9.00	8.17	7.14
		38 x 286	9.56	8.68	7.58	10.94	9.94	8.68
	No. 1	38 x 89	2.97	2.70	2.36	3.40	3.09	2.70
		38 x 140	4.67	4.24	3.71	5.35	4.86	4.23
		38 x 184	6.16	5.59	4.89	7.05	6.40	5.58
		38 x 235	7.86	7.14	6.24	9.00	8.17	7.12
		38 x 286	9.56	8.68	7.58	10.94	9.94	8.66
	No. 2	38 x 89	2.87	2.61	2.28	3.29	2.99	2.61
		38 x 140	4.51	4.10	3.58	5.17	4.63	3.73
		38 x 184	5.95	5.41	4.72	6.82	6.10	4.98
		38 x 235	7.60	6.90	6.03	8.70	7.79	6.36
		38 x 286	9.24	8.39	7.33	10.58	9.47	7.73

Continued on next page

Table A-1 (Cont'd)
Forming Part of Article 9.23.4. 1.

**CEILING JOISTS — ATTIC NOT ACCESSIBLE BY A STAIRWAY
(LIVE LOAD 0.5 kN/m²)**

Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other ceilings		
			Joist Spacing			Joist Spacing		
			300 mm	400 mm	600 mm	300 mm	400 mm	600 mm
			m	m	m	m	m	m
	No. 3	38 x 89	2.74	2.37	1.94	2.74	2.37	1.94
		38 x 140	4.04	3.50	2.85	4.04	3.50	2.85
		38 x 184	5.33	4.61	3.76	5.33	4.61	3.76
		38 x 235	6.80	5.89	4.80	6.80	5.89	4.80
		38 x 286	8.27	7.16	5.84	8.27	7.16	5.84
	Construction	38 x 89	2.77	2.51	2.19	3.15	2.72	2.22
	Standard	38 x 89	2.34	2.03	1.66	2.34	2.03	1.66
	Utility	38 x 89	1.60	1.39	1.13	1.60	1.39	1.13
Northern species (includes any Canadian softwood covered by the NLGA Standard Grading, Rules)	Select Structural	38 x 89	2.97	2.70	2.36	3.40	3.09	2.70
		38 x 140	4.67	4.24	3.71	5.35	4.86	4.24
		38 x 184	6.16	5.59	4.89	7.05	6.40	5.59
		38 x 235	7.86	7.14	6.24	9.00	8.17	7.14
		38 x 286	9.56	8.68	7.58	10.94	9.94	8.68
	No. 1	38 x 89	2.97	2.70	2.36	3.40	3.09	2.70
		38 x 140	4.67	4.24	3.71	5.35	4.86	4.04
		38 x 184	6.16	5.59	4.89	7.05	6.40	5.33
		38 x 235	7.86	7.14	6.24	9.00	8.17	6.80
		38 x 286	9.56	8.68	7.58	10.94	9.94	8.27
	No. 2	38 x 89	2.87	2.61	2.28	3.29	2.99	2.51
		38 x 140	4.51	4.10	3.58	5.13	4.44	3.63
		38 x 184	5.95	5.41	4.72	6.76	5.86	4.78
		38 x 235	7.60	7.90	6.03	8.63	7.47	6.10
		38 x 286	9.24	8.39	7.33	10.50	9.09	7.42
	No. 3	38 x 89	2.64	2.29	1.86	2.64	2.29	1.86
		38 x 140	3.87	3.35	2.73	3.87	3.35	2.73
		38 x 184	5.10	4.42	3.60	5.10	4.42	3.60
		38 x 235	6.51	5.64	4.60	6.51	5.64	4.60
		38 x 286	7.92	6.85	5.60	7.92	6.85	5.60
	Construction	38 x 89	2.77	2.51	2.14	3.03	2.62	2.14
	Standard	38 x 89	2.26	1.96	1.60	2.26	1.96	1.60

Continued on next page

Table A-1 (Cont'd)
Forming Part of Article 9.23.4. 1.

CEILING JOISTS — ATTIC NOT ACCESSIBLE BY A STAIRWAY (LIVE LOAD 0.5 kN/m²)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other ceilings		
			Joist Spacing			Joist Spacing		
			300 mm	400 mm	600 mm	300 mm	400 mm	600 mm
			m	m	m	m	m	m
	Utility	38 x 89	1.54	1.33	1.09	1.54	1.33	1.09
Northern Aspen (includes Aspen, Poplar, Large Tooth Aspen and Balsam Poplar)	Select structural	38 x 89	3.02	2.74	2.39	3.45	3.14	2.74
		38 x 140	4.74	4.31	3.76	5.43	4.93	4.31
		38 x 184	6.26	5.68	4.96	7.16	6.51	5.68
		38 x 235	7.98	7.25	6.33	9.14	8.30	7.25
		38 x 286	9.71	8.82	7.70	11.11	10.10	8.82
	No. 1	38 x 89	3.02	2.74	2.39	3.45	3.14	2.74
		38 x 140	4.74	4.31	3.76	5.43	4.93	4.18
		38 x 184	6.26	5.68	4.96	7.16	6.51	5.51
		38 x 235	7.98	7.25	6.33	9.14	8.30	7.03
		38 x 286	9.71	8.82	7.70	11.11	10.10	8.55
	No. 2	38 x 89	2.91	2.64	2.31	3.33	3.03	2.60
		38 x 140	4.57	4.16	3.63	5.24	4.59	3.75
		38 x 184	6.03	5.48	4.79	6.90	6.05	4.94
		38 x 235	7.70	6.99	6.11	8.81	7.73	6.31
		38 x 286	9.36	8.51	7.43	10.72	9.40	7.67
	No. 3	38 x 89	2.74	2.37	1.94	2.74	2.37	1.94
		38 x 140	4.04	3.50	2.85	4.04	3.50	2.85
		38 x 184	5.33	4.61	3.76	5.33	4.61	3.76
		38 x 235	6.80	5.89	4.80	6.80	5.89	4.80
		38 x 286	8.27	7.16	5.84	8.27	7.16	5.84
	Construct-ion	38 x 89	2.79	2.54	2.20	3.12	2.70	2.20
	Standard	38 x 89	2.34	2.03	1.66	2.34	2.03	1.66
	Utility	38 x 89	1.60	1.39	1.13	1.60	1.39	1.13

Table A-2
Forming Part of Article 9.23.4.1.

FLOOR JOISTS — LIVING QUARTERS LIVE LOAD 1.9 kN/m ²					
Commercial Designation	Grade	Nominal Size, mm	All ceilings		
			Joist Spacing		
			300 mm	400 mm	600 mm
			m	m	m
Douglas Fir-Larch (includes Douglas Fir and Western Larch)	Select structural	38 x 89	2.17	1.98	1.72
		38 x 140	3.42	3.11	2.71
		38 x 184	4.51	4.10	3.58
		38 x 235	5.76	5.23	4.57
		38 x 286	7.00	6.36	5.56
	No. 1	38 x 89	2.17	1.98	1.72
		38 x 140	3.42	3.11	2.71
		38 x 184	4.51	4.10	3.58
		38 x 235	5.76	5.23	4.57
		38 x 286	7.00	6.36	5.56
	No. 2	38 x 89	2.10	1.91	1.67
		38 x 140	3.31	3.00	2.59
		38 x 184	4.36	3.96	3.42
		38 x 235	5.56	5.05	4.36
		38 x 286	6.77	6.15	5.31
	No. 3	38 x 89	1.88	1.63	1.33
		38 x 140	2.77	2.40	1.96
		38 x 184	3.66	3.17	2.59
		38 x 235	4.67	4.04	3.30
		38 x 286	5.68	4.92	4.01
	Construction	38 x 89	2.02	1.83	1.52
	Standard	38 x 89	1.62	1.40	1.14
	Utility	38 x 89	1.10	0.95	0.78
	Select Structural	38 x 89	2.10	1.90	1.66
		38 x 140	3.30	2.99	2.61
		38 x 184	4.35	3.95	3.45
		38 x 235	5.55	5.04	4.40
		38 x 286	6.75	6.13	5.35
	No. 1	38 x 89	2.10	1.90	1.66
		38 x 140	3.30	2.99	2.49
		38 x 184	4.35	3.95	3.28
		38 x 235	5.55	5.04	4.19
		38 x 286	6.75	6.13	5.09

Continued on next page

Table A-2 (Cont'd)
Forming Part of Article 9.23.4.1.

FLOOR JOISTS — LIVING QUARTERS LIVE LOAD 1.9 kN/m²					
Commercial Designation	Grade	Nominal Size,	All ceilings		
			Joist Spacing		
			300 mm	400 mm	600 mm
		mm	m	m	m
Hem-Fir (includes Western Hemlock and Amabilis Fir)	No. 2	38 x 89	2.02	1.84	1.54
		38 x 140	3.16	2.73	2.23
		38 x 184	4.16	3.60	2.94
		38 x 235	5.31	4.60	3.76
		38 x 286	6.46	5.60	4.57
	No. 3	38 x 89	1.62	1.40	1.14
		38 x 140	2.39	2.07	1.69
		38 x 184	3.16	2.73	2.23
		38 x 235	4.03	3.49	2.85
		38 x 286	4.90	4.24	3.46
	Construction	38 x 89	1.86	1.61	1.32
	Standard	38 x 89	1.40	1.21	0.99
	Utility	38 x 89	0.95	0.83	0.67
Eastern Hemlock-Tamarack (includes Eastern Hemlock and Tamarack)	Select Structural	38 x 89	2.00	1.81	1.58
		38 x 140	3.14	2.85	2.49
		38 x 184	4.14	3.76	3.29
		38 x 235	5.28	4.80	4.19
		38 x 286	6.43	5.84	5.10
	No. 1	38 x 89	2.00	1.81	1.58
		38 x 140	3.14	2.85	2.49
		38 x 184	4.14	3.76	3.29
		38 x 235	5.28	4.80	4.19
		38 x 286	6.43	5.84	5.10
	No. 2	38 x 89	1.92	1.75	1.53
		38 x 140	3.03	2.75	2.40
		38 x 184	3.99	3.63	3.17
		38 x 235	5.09	4.63	4.04
		38 x 286	6.20	5.63	4.92
	No. 3	38 x 89	1.81	1.57	1.28
		38 x 140	2.66	2.31	1.88
		38 x 184	3.51	3.04	2.48
		38 x 235	4.48	3.88	3.17
		38 x 286	5.45	4.72	3.85
	Construction	38 x 89	1.85	1.68	1.47

Table A-2 (Cont'd)
Forming Part of Article 9.23.4.1.

FLOOR JOISTS — LIVING QUARTERS LIVE LOAD 1.9 kN/m ²					
Commercial Designation	Grade	Nominal Size,	All ceilings		
			Joist Spacing		
			300 mm	400 mm	600 mm
		mm	m	m	m
	Standard	38 x 89	1.54	1.33	1.09
	Utility	38 x 89	1.07	0.93	0.76
Coast Species (includes Douglas Fir, Western Larch, Western Hemlock, Amabilis Fir and Coast Sitka Spruce)	Select Structural	38 x 89	2.10	1.90	1.66
		38 x 140	3.30	2.99	2.61
		38 x 184	4.35	3.95	3.45
		38 x 235	5.55	5.04	4.40
		38 x 286	6.75	6.13	5.35
	No. 1	38 x 89	2.10	1.90	1.66
		38 x 140	3.30	2.99	2.46
		38 x 184	4.35	3.95	3.24
		38 x 235	5.55	5.04	4.13
		38 x 286	6.75	6.13	5.03
	No. 2	38 x 89	2.02	1.84	1.52
		38 x 140	3.11	2.69	2.20
		38 x 184	4.10	3.55	2.90
		38 x 235	5.23	4.53	3.70
		38 x 286	6.36	5.51	4.50
	No. 3	38 x 89	1.60	1.39	1.13
		38 x 140	2.36	2.05	1.67
		38 x 184	3.12	2.70	2.20
		38 x 235	3.98	3.44	2.81
		38 x 286	4.84	4.19	3.42
	Construction	38 x 89	1.83	1.59	1.29
	Standard	38 x 89	1.37	1.19	0.97
	Utility	38 x 89	0.95	0.83	0.67
	Select structural	x 89	1.98	1.79	1.57
		38 x 140	3.11	2.82	2.46
		38 x 184	4.10	3.72	3.25
		38 x 235	5.23	4.75	4.15
		38 x 286	6.36	5.78	5.05

Continued on next page

Table A-2 (Cont'd)
Forming Part of Article 9.23.4.1.

FLOOR JOISTS — LIVING QUARTERS LIVE LOAD 1.9 kN/m ²					
Commercial Designation	Grade	Nominal Size, mm	All ceilings		
			Joist Spacing		
			300 mm	400 mm	600 mm
			m	m	m
Spruce-Pine-Fir (includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir)	No. 1	38 x 89	1.98	1.79	1.57
		38 x 140	3.11	2.82	2.41
		38 x 184	4.10	3.72	3.18
		38 x 235	5.23	4.75	4.06
		38 x 286	6.36	5.78	4.93
	No. 2	38 x 89	1.91	1.73	1.49
		38 x 140	3.00	2.65	2.16
		38 x 184	3.96	3.49	2.85
		38 x 235	5.05	4.46	3.64
		38 x 286	6.15	5.42	4.43
	No. 3	38 x 89	1.58	1.37	1.12
		38 x 140	2.33	2.02	1.65
		38 x 184	3.07	2.66	2.17
		38 x 235	3.92	3.40	2.77
		38 x 286	4.77	4.13	3.37
	Construction	38 x 89	1.80	1.56	1.27
	Standard	38 x 89	1.35	1.17	0.95
	Utility	38 x 89	0.92	0.80	0.65
Western Cedars (includes Western Red Cedar and Pacific Coast Yellow Cedar)	Select Structural	38 x 89	1.90	1.73	1.51
		38 x 140	2.99	2.72	2.37
		38 x 184	3.94	3.58	3.13
		38 x 235	5.03	4.57	3.99
		38 x 286	6.12	5.56	4.86
	No. 1	38 x 89	1.90	1.73	1.51
		38 x 140	2.99	2.72	2.37
		38 x 184	3.94	3.58	3.13
		38 x 235	5.03	4.57	3.99
		38 x 286	6.12	5.56	4.86
	No. 2	38 x 89	1.84	1.67	1.46
		38 x 140	2.89	2.63	2.18
		38 x 184	3.81	3.46	2.87
		38 x 235	4.87	4.42	3.67
		38 x 286	5.92	5.38	4.46

Continued on next page

Table A-2 (Cont'd)
Forming Part of Article 9.23.4.1.

FLOOR JOISTS — LIVING QUARTERS LIVE LOAD 1.9 kN/m²					
Commercial Designation	Grade	Nominal Size, mm	All ceilings		
			Joist Spacing		
			300 mm	400 mm	600 mm
			m	m	m
	No. 3	38 x 89	1.58	1.37	1.12
		38 x 140	2.33	2.02	1.65
		38 x 184	3.07	2.66	2.17
		38 x 235	3.92	3.40	2.77
		38 x 286	4.77	4.13	3.37
	Construction	38 x 89	1.77	1.57	1.28
	Standard	38 x 89	1.35	1.17	0.95
	Utility	38 x 89	0.92	0.80	0.65
Northern Species (includes any Canadian soft- wood covered by the NILGA Standard Grading Rules)	Select structural	38 x 89	1.90	1.73	1.51
		38 x 140	2.99	2.72	2.37
		38 x 184	3.94	3.58	3.13
		38 x 235	5.03	4.57	3.99
		38 x 286	6.12	5.56	4.86
	No. 1	38 x 89	1.90	1.73	1.51
		38 x 140	2.99	2.72	2.33
		38 x 184	3.94	3.58	3.07
		38 x 235	5.03	4.57	3.92
		38 x 286	6.12	5.56	4.77
	No. 2	38 x 89	1.84	1.67	1.45
		38 x 140	2.89	2.56	2.09
		38 x 184	3.81	3.38	2.76
		38 x 235	4.87	4.31	3.52
		38 x 286	5.92	5.25	4.28
	No. 3	38 x 89	1.52	1.32	1.07
		38 x 140	2.23	1.93	1.58
		38 x 184	2.94	2.55	2.08
		38 x 235	3.76	3.25	2.65
		38 x 286	4.57	3.96	3.23
	Construction	38 x 89	1.75	1.51	1.23
	Standard	38 x 89	1.31	1.13	0.92
	Utility	38 x 89	0.89	0.77	0.63

Continued on next page

Table A-2 (Cont'd)
Forming Part of Article 9.23.4.1.

FLOOR JOISTS — LIVING QUARTERS LIVE LOAD 1.9 kN/m ²					
Commercial Designation	Grade	Nominal Size, mm	All ceilings		
			Joist Spacing		
			300 mm	400 mm	600 mm
			m	m	m
Northern Aspen (includes Aspen Poplar Large Tooth Aspen and Balsam Poplar)	Select structural	38 x 89	1.93	1.75	1.53
		38 x 140	3.04	2.76	2.41
		38 x 184	4.01	3.64	3.18
		38 x 235	5.11	4.65	4.06
		38 x 286	6.22	5.65	4.94
	No. 1	38 x 89	1.93	1.75	1.53
		38 x 140	3.04	2.76	2.41
		38 x 184	4.01	3.64	3.18
		38 x 235	5.11	4.65	4.06
		38 x 286	6.22	5.65	4.93
	No. 2	38 x 89	1.86	1.69	1.48
		38 x 140	2.93	2.65	2.16
		38 x 184	3.86	3.49	2.85
		38 x 235	4.93	4.46	3.64
		38 x 286	6.00	5.42	4.43
	No. 3	38 x 89	1.58	1.37	1.12
		38 x 140	2.33	2.02	1.65
		38 x 184	3.07	2.66	2.17
		38 x 235	3.92	3.40	2.77
		38 x 286	4.77	4.13	3.37
	Construction	38 x 89	1.79	1.56	1.27
	Standard	38 x 89	1.35	1.17	0.95
	Utility	38 x 89	0.92	0.80	0.65

Table A-3
Forming Part of Article 9.23.4.1.

FLOOR JOISTS - BEDROOMS AND ATTICS ACCESSIBLE BY A STAIRWAY LIVE LOAD 1.4 kN/m ²								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Douglas Fir- Larch (includes Douglas Fir and Western Larch)	Select structural	38 x 89	2.41	2.19	1.91	2.76	2.50	2.19
		38 x 140	3.79	3.44	3.00	4.34	3.94	3.44
		38 x 184	4.99	4.54	3.96	5.72	5.19	4.54
		38 x 235	6.37	5.79	5.06	7.30	6.63	5.79
		38 x 286	7.75	7.04	6.15	8.87	8.06	7.04
	No. 1	38 x 89	2.41	2.19	1.91	2.76	2.50	2.19
		38 x 140	3.79	3.44	3.00	4.34	3.94	3.28
		38 x 184	4.99	4.54	3.96	5.72	5.19	4.33
		38 x 235	6.37	5.79	5.06	7.30	6.63	5.52
		38 x 286	7.75	7.04	6.15	8.87	8.06	6.72
	No. 2	38 x 89	2.33	2.11	1.85	2.67	2.42	2.05
		38 x 140	3.66	3.33	2.90	4.18	3.62	2.95
		38 x 184	4.83	4.38	3.83	5.51	4.77	3.89
		38 x 235	6.16	5.60	4.89	7.03	6.09	4.97
		38 x 286	7.49	6.81	5.95	8.55	7.40	6.04
	No. 3	38 x 89	2.14	1.86	1.51	2.14	1.86	1.51
		38 x 140	3.16	2.74	2.23	3.16	2.74	2.23
		38 x 184	4.17	3.61	2.95	4.17	3.61	2.95
		38 x 235	5.32	4.61	3.76	5.32	4.61	3.76
		38 x 286	6.47	5.60	4.57	6.47	5.60	4.57
	Construc- tion	38 x 89	2.23	2.03	1.73	2.45	2.12	1.73
	Standard	38 x 89	1.84	1.60	1.30	1.84	1.60	1.30
	Utility	38 x 89	1.26	1.09	0.89	1.26	1.09	0.89
	Select structural	38 x 89	2.32	2.11	1.84	2.66	2.41	2.11
		38 x 140	3.65	3.32	2.90	4.18	3.74	3.05
		38 x 184	4.81	4.37	3.82	5.51	4.93	4.02
		38 x 235	6.14	5.58	4.87	7.03	6.29	5.13
		38 x 286	7.47	6.79	5.93	8.55	7.65	6.24
	No. 1	38 x 89	2.32	2.11	1.84	2.66	2.38	1.94
		38 x 140	3.65	3.32	2.83	4.01	3.47	2.83
		38 x 184	4.81	4.37	3.74	5.29	4.58	3.74
		38 x 235	6.14	5.58	4.77	6.75	5.84	4.77
		38 x 286	7.47	6.79	5.80	8.21	7.11	5.80

Continued on next page

Table A-3 (Cont'd)
Forming Part of Article 9.23.4.1.

FLOOR JOISTS - BEDROOMS AND ATTICS ACCESSIBLE BY A STAIRWAY LIVE LOAD 1.4 kN/m ²								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Hem-Fir (includes Western Hemlock and Amabilis Fir)	No. 2	38 x 89	2.24	2.04	1.76	2.49	2.15	1.76
		38 x 140	3.52	3.11	2.54	3.60	3.11	2.54
		38 x 184	4.65	4.11	3.35	4.74	4.11	3.35
		38 x 235	5.93	5.24	4.28	6.05	5.24	4.28
		38 x 286	7.21	6.37	5.20	7.36	6.37	5.20
	No. 3	38 x 89	1.84	1.60	1.30	1.84	1.60	1.30
		38 x 140	2.73	2.36	1.93	2.73	2.36	1.93
		38 x 184	3.60	3.11	2.54	3.60	3.11	2.54
		38 x 235	4.59	3.97	3.24	4.59	3.97	3.24
		38 x 286	5.58	4.84	3.95	5.58	4.84	3.95
	Construction	38 x 89	2.12	1.84	1.50	2.12	1.84	1.50
	Standard	38 x 89	1.59	1.38	1.12	1.59	1.38	1.12
	Utility	38 x 89	1.09	0.94	0.77	1.09	0.94	0.77
Eastern Hemlock Tamarack (includes Eastern Hemlock and Tamarack)	Select structural	38 x 89	2.21	2.01	1.75	2.53	2.30	2.01
		38 x 140	3.48	3.16	2.76	3.98	3.62	3.16
		38 x 184	4.58	4.16	3.64	5.25	4.77	4.16
		38 x 235	5.85	5.32	4.64	6.70	6.09	5.32
		38 x 286	7.12	6.47	5.65	8.15	7.40	6.47
	No. 1	38 x 89	2.21	2.01	1.75	2.53	2.30	2.01
		38 x 140	3.48	3.16	2.76	3.98	3.62	3.16
		38 x 184	4.58	4.16	3.64	5.25	4.77	4.16
		38 x 235	5.85	5.32	4.64	6.70	6.09	5.32
		38 x 286	7.12	6.47	5.65	8.15	7.40	6.47
	No. 2	38 x 89	2.13	1.94	1.69	2.44	2.22	1.94
		38 x 140	3.35	3.04	2.66	3.84	3.47	2.83
		38 x 184	4.42	4.01	3.51	5.06	4.58	3.74
		38 x 235	5.64	5.12	4.48	6.46	5.84	4.77
		38 x 286	6.86	6.23	5.44	7.85	7.11	5.80
	No. 3	38 x 89	2.05	1.79	1.46	2.07	1.79	1.46
		38 x 140	3.03	2.63	2.14	3.03	2.63	2.14
		38 x 184	4.00	3.46	2.83	4.00	3.46	2.83
		38 x 235	5.11	4.42	3.61	5.11	4.42	3.61
		38 x 286	6.21	5.38	4.39	6.21	5.38	4.39

Continued on next page

Table A-3 (Cont'd)
Forming Part of Article 9.23.4.1.

FLOOR JOISTS - BEDROOMS AND ATTICS ACCESSIBLE BY A STAIRWAY
LIVE LOAD 1.4 kN/m²

Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
	Construction	38 x 89	2.05	1.87	1.63	2.35	2.05	1.68
	Standard	38 x 89	1.76	1.52	1.24	1.76	1.52	1.24
	Utility	38 x 89	1.22	1.06	0.86	1.22	1.06	0.86
Coast Species (includes Douglas Fir, Western Larch, Western Hemlock, Amabilis Fir, and Coast Sitka Spruce)	Select Structural	38 x 89	2.32	2.11	1.84	2.66	2.41	2.08
		38 x 140	3.65	3.32	2.90	4.18	3.70	3.02
		38 x 184	4.81	4.37	3.82	5.51	4.88	3.98
		38 x 235	6.14	5.58	4.87	7.03	6.22	5.08
		38 x 286	7.47	6.79	5.93	8.55	7.57	6.18
	No. 1	38 x 89	2.32	2.11	1.84	2.66	2.35	1.92
		38 x 140	3.65	3.32	2.80	3.96	3.43	2.80
		38 x 184	4.81	4.37	3.69	5.22	4.52	3.69
		38 x 235	6.14	5.58	4.71	6.66	5.77	4.71
		38 x 286	7.47	6.79	5.73	8.10	7.02	5.73
	No. 2	38 x 89	2.24	2.04	1.73	2.45	2.12	1.73
		38 x 140	3.52	3.07	2.50	3.54	3.07	2.50
		38 x 184	4.65	4.04	3.30	4.67	4.04	3.30
		38 x 235	5.93	5.16	4.21	5.96	5.16	4.21
		38 x 286	7.21	6.28	5.12	7.25	6.28	5.12
	No. 3	38 x 89	1.82	1.58	1.29	1.82	1.58	1.29
		38 x 140	2.69	2.33	1.90	2.69	2.33	1.90
		38 x 184	3.55	3.07	2.51	3.55	3.07	2.51
		38 x 235	4.53	3.92	3.20	4.53	3.92	3.20
		38 x 286	5.51	4.77	3.89	5.51	4.77	3.89
	Construction	38 x 89	2.09	1.81	1.47	2.09	1.81	1.47
	Standard	38 x 89	1.57	1.36	1.11	1.57	1.36	1.11
	Utility	38 x 89	1.09	0.94	0.77	1.09	0.94	0.77
	Select structural	38 x 89	2.19	1.99	1.74	2.50	2.28	1.99
		38 x 140	3.44	3.13	2.73	3.94	3.58	2.95
		38 x 184	4.54	4.12	3.60	5.19	4.72	3.89
		38 x 235	5.79	5.26	4.59	6.63	6.02	4.97
		38 x 286	7.04	6.40	5.59	8.06	7.32	6.04

Continued on next page

Table A-3 (Cont'd)
Forming Part of Article 9.23.4.1.

FLOOR JOISTS - BEDROOMS AND ATTICS ACCESSIBLE BY A STAIRWAY LIVE LOAD 1.4 kN/m ²								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Spruce-Pine-Fir (includes a Spruce (all species except Coast Sitka Spruce), Jack Pine, Balsam Fir and Alpine Fir)	No. 1	38 x 89	2.19	1.99	1.74	2.50	2.28	1.88
		38 x 140	3.44	3.13	2.73	3.88	3.36	2.75
		38 x 184	4.54	4.12	3.60	5.12	4.44	3.62
		38 x 235	5.79	5.26	4.59	6.54	5.66	4.62
		38 x 286	7.04	6.40	5.59	7.95	6.89	5.62
	No. 2	38 x 89	2.11	1.92	1.68	2.41	2.08	1.70
		38 x 140	3.33	3.02	2.46	3.49	3.02	2.46
		38 x 184	4.38	3.98	3.25	4.60	3.98	4.35
		38 x 235	5.60	5.08	4.15	5.87	5.08	4.15
		38 x 286	6.81	6.18	5.04	7.13	6.18	5.04
	No. 3	38 x 89	1.80	1.56	1.27	1.80	1.56	1.27
		38 x 140	2.65	2.30	1.88	2.65	2.30	1.88
		38 x 184	3.50	3.03	2.47	3.50	3.03	2.47
		38 x 235	4.47	3.87	3.16	4.47	3.87	3.16
		38 x 286	5.44	4.71	3.84	5.44	4.71	3.84
	Construc- tion	38 x 89	2.04	1.77	1.45	2.05	1.77	1.45
	Standard	38 x 89	1.54	1.33	1.09	1.54	1.33	1.09
	Utility	38 x 89	1.05	0.91	0.74	1.05	0.91	0.74
Western Cedars (includes Western Red Cedar and	Select Structural	38 x 89	2.11	1.91	1.67	2.41	2.19	1.91
		38 x 140	3.31	3.01	2.63	3.79	3.44	2.99
		38 x 184	4.37	3.97	3.47	5.00	4.54	3.94
		38 x 235	5.57	5.06	4.42	6.38	5.80	5.02
		38 x 286	6.78	6.16	5.38	7.76	7.05	6.11
	No. 1	38 x 89	2.11	1.91	1.67	2.41	2.19	1.90
		38 x 140	3.31	3.01	2.63	3.79	3.41	2.78
		38 x 184	4.37	3.97	3.47	5.00	4.49	3.67
		38 x 235	5.57	5.06	4.42	6.38	5.73	4.68
		38 x 286	6.78	6.16	5.38	7.76	6.97	5.69
	No. 2	38 x 89	2.04	1.85	1.61	2.33	2.11	1.72
		38 x 140	3.20	2.91	2.48	3.51	3.04	2.48
		38 x 184	4.22	3.84	3.27	4.63	4.01	3.27
		38 x 235	5.39	4.90	4.18	5.91	5.12	4.18
		38 x 286	6.55	5.95	5.08	7.19	6.23	5.08

Continued on next page

Table A-3 (Cont'd)
Forming Part of Article 9.23.4.1.

FLOOR JOISTS - BEDROOMS AND ATTICS ACCESSIBLE BY A STAIRWAY LIVE LOAD 1.4 kN/m ²								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Coast Yellow Cedar)	No. 3	38 x 89	1.80	1.56	1.27	1.80	1.56	1.27
		38 x 140	2.65	2.30	1.88	2.65	2.30	1.88
		38 x 184	3.50	3.03	2.47	3.50	3.03	2.47
		38 x 235	4.47	3.87	3.16	4.47	3.87	3.16
		38 x 286	5.44	4.71	3.84	5.44	4.71	3.84
	Construction	38 x 89	1.96	1.78	1.46	2.07	1.79	1.46
	Standard	38 x 89	1.54	1.33	1.09	1.54	1.33	1.09
	Utility	38 x 89	1.05	0.91	0.74	1.05	0.91	0.74
Northern Species (includes any Canadian Softwood covered by the NLGA Standard Grading Rules)	Select structural	38 X 89	2.11	1.91	1.67	2.41	2.19	1.91
		38 X 140	3.31	3.01	2.63	3.79	3.44	2.87
		38 X 184	4.37	3.97	3.47	5.00	4.54	3.78
		38 X 235	5.57	5.06	4.42	6.38	5.80	4.83
		38 X 286	6.78	6.16	5.38	7.76	7.05	5.87
	No. 1	38 X 89	2.11	1.91	1.67	2.41	2.19	1.82
		38 X 140	3.31	3.01	2.63	3.76	3.25	2.65
		38 X 184	4.37	3.97	3.47	4.95	4.29	3.50
		38 X 235	5.57	5.06	4.42	6.32	5.47	4.47
		38 X 286	6.78	6.16	5.38	7.69	6.66	5.44
	No. 2	38 X 89	2.04	1.85	1.61	2.33	2.02	1.65
		38 X 140	3.20	2.91	2.38	3.37	2.92	2.38
		38 X 184	4.22	3.84	3.14	4.45	3.85	3.14
		38 X 235	5.39	4.90	4.01	5.67	4.91	4.01
		38 X 286	6.55	5.95	4.88	6.90	5.98	4.88
	No. 3	38 X 89	1.73	1.50	1.22	1.73	1.50	1.22
		38 X 140	2.54	2.20	1.80	2.54	2.20	1.80
		38 X 184	3.35	2.90	2.37	3.35	2.90	2.37
		38 X 235	4.28	3.70	3.02	4.28	3.70	3.02
		38 X 286	5.20	4.51	3.68	5.20	4.51	3.68
	Construction	38 X 89	1.96	1.72	1.41	1.99	1.72	1.41
	Standard	38 X 89	1.49	1.29	1.05	1.49	1.29	1.05
	Utility	38 X 89	1.01	0.88	0.71	1.01	0.88	0.71

Continued on next page

Table A-3 (Cont'd)
Forming Part of Article 9.23.4.1.

FLOOR JOISTS - BEDROOMS AND ATTICS ACCESSIBLE BY A STAIRWAY LIVE LOAD 1.4 kN/m²								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Northern Aspen (includes Aspen Poplar, Large Tooth Aspen and Balsam Poplar)	Select structural	38 X 89	2.14	1.94	1.70	2.45	2.23	1.94
		38 X 140	3.36	3.06	2.67	3.85	3.50	2.95
		38 X 184	4.44	4.03	3.52	5.08	4.61	3.89
		38 X 235	5.66	5.14	4.49	6.48	5.89	4.97
		38 X 286	6.89	6.26	5.47	7.88	7.16	6.04
	No. 1	38 X 89	2.14	1.94	1.70	2.45	2.23	1.88
		38 X 140	3.36	3.06	2.67	3.85	3.36	2.75
		38 X 184	4.44	4.03	3.52	5.08	4.44	3.62
		38 X 235	5.66	5.14	4.49	6.48	5.66	4.62
		38 X 286	6.89	6.26	5.47	7.88	6.89	5.62
	No. 2	38 X 89	2.06	1.87	1.64	2.36	2.10	1.71
		38 X 140	3.24	2.95	2.46	3.49	3.02	2.46
		38 X 184	4.28	3.89	3.25	4.60	3.98	3.25
		38 X 235	5.46	4.96	4.15	5.87	5.08	4.15
		38 X 286	6.64	6.03	5.04	7.13	6.18	5.04
	No. 3	38 X 89	1.80	1.56	1.27	1.80	1.56	1.27
		38 X 140	2.65	2.30	1.88	2.65	2.30	1.88
		38 X 184	3.50	3.03	2.47	3.50	3.03	2.47
		38 X 235	4.47	3.87	3.16	4.47	3.87	3.16
		38 X 286	5.44	4.71	3.84	5.44	4.71	3.84
	Construc- tion	38 X 89	1.98	1.77	1.45	2.05	1.77	1.45
	Standard	38 X 89	1.54	1.33	1.09	1.54	1.33	1.09
	Utility	38 X 89	1.05	0.91	0.74	1.05	0.91	0.74

Table A-4
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 4.2 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Douglas Fir-Larch (includes Douglas Fir and Western Larch)	Select structural	38 X 89	1.98	1.80	1.57	2.27	2.06	1.80
		38 X 140	3.12	2.83	2.48	3.57	3.25	2.83
		38 X 184	4.11	3.74	3.27	4.71	4.28	3.74
		38 X 235	5.25	4.77	4.17	6.01	5.46	4.77
		38 X 286	6.39	5.80	5.07	7.31	6.64	5.80
	No. 1	38 X 89	1.98	1.80	1.57	2.27	2.06	1.80
		38 X 140	3.12	2.83	2.48	3.57	3.25	2.76
		38 X 184	4.11	3.74	3.27	4.71	4.28	3.64
		38 X 235	5.25	4.77	4.17	6.01	5.46	4.65
		38 X 286	6.39	5.80	5.07	7.31	6.64	5.66
	No. 2	38 X 89	1.92	1.74	1.52	2.20	1.99	1.72
		38 X 140	3.02	2.74	2.39	3.45	3.04	2.49
		38 X 184	3.98	3.61	3.16	4.55	4.02	3.28
		38 X 235	5.08	4.61	4.03	5.81	5.12	4.18
		38 X 286	6.17	5.61	4.90	7.07	6.23	5.09
	No. 3	38 X 89	1.80	1.56	1.27	1.80	1.56	1.27
		38 X 140	2.66	2.30	1.88	2.66	2.30	1.88
		38 X 184	3.51	3.04	2.48	3.51	3.04	2.48
		38 X 235	4.48	3.88	3.17	4.48	3.88	3.17
		38 X 286	5.45	4.72	3.85	5.45	4.72	3.85
	Construction	38 X 89	1.84	1.67	1.46	2.07	1.79	1.46
	Standard	38 X 89	1.55	1.34	1.10	1.55	1.34	1.10
	Utility	38 X 89	1.06	0.92	0.75	1.06	0.92	0.75
	Select structural	38 X 89	1.91	1.74	1.52	2.19	1.99	1.74
		38 X 140	3.01	2.73	2.39	3.44	3.13	2.57
		38 X 184	3.97	3.60	3.15	4.54	4.12	3.39
		38 X 235	5.06	4.60	4.02	5.79	5.26	4.32
		38 X 286	6.16	5.59	4.89	7.05	6.40	5.26
	No. 1	38 X 89	1.91	1.74	1.52	2.19	1.99	1.63
		38 X 140	3.01	2.73	2.39	3.38	2.92	2.39
		38 X 184	3.97	3.60	3.15	4.45	3.85	3.15
		38 X 235	5.06	4.60	4.01	5.68	4.92	4.01
		38 X 286	6.16	5.59	4.88	6.91	5.98	4.88
		38 X 89	1.91	1.74	1.52	2.19	1.99	1.74
		38 X 140	3.01	2.73	2.39	3.44	3.13	2.57
		38 X 184	3.97	3.60	3.15	4.54	4.12	3.39
		38 X 235	5.06	4.60	4.02	5.79	5.26	4.32

Continued on next page

Table A-4 (Cont'd)
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 4.2 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Hem-Fir (includes Western Hemlock and Amabilis Fir)	No. 2	38 X 89	1.85	1.68	1.46	2.09	1.81	1.48
		38 X 140	2.90	2.62	2.14	3.03	2.62	2.14
		38 X 184	3.83	3.46	2.82	3.99	3.46	2.82
		38 X 235	4.89	4.41	3.60	5.10	4.41	3.60
		38 X 286	5.95	5.37	4.38	6.20	5.37	4.38
	No. 3	38 X 89	1.55	1.34	1.10	1.55	1.34	1.10
		38 X 140	2.30	1.99	1.62	2.30	1.99	1.62
		38 X 184	3.03	2.62	2.14	3.03	2.62	2.14
		38 X 235	3.87	3.35	2.73	3.87	3.35	2.73
		38 X 286	4.70	4.07	3.32	4.70	4.74	3.32
	Construction	38 x 89	1.78	1.55	1.26	1.79	1.55	1.26
	Standard	38 x 89	1.34	1.16	0.95	1.34	1.16	0.95
	Utility	38 X 89	0.92	0.79	0.65	0.92	0.79	0.65
Eastern Hemlock- Tamarack (includes Eastern Hemlock and Tamarack)	Select structural	38 X 89	1.82	1.65	1.44	2.09	1.89	1.65
		38 X 140	2.86	2.60	2.27	3.28	2.98	2.60
		38 X 184	3.78	3.43	3.00	4.33	3.93	3.43
		38 X 235	4.82	4.38	3.83	5.52	5.01	4.38
		38 X 286	5.87	5.33	4.65	6.71	6.10	5.33
	No. 1	38 X 89	1.82	1.65	1.44	2.09	1.89	1.65
		38 X 140	2.86	2.60	2.27	3.28	2.98	2.60
		38 X 184	3.78	3.43	3.00	4.33	3.93	3.43
		38 X 235	4.82	4.38	3.83	5.52	5.01	4.38
		38 X 286	5.87	5.33	4.65	6.71	6.10	5.33
	No. 2	38 X 89	1.76	1.59	1.39	2.01	1.83	1.59
		38 X 140	2.76	2.51	2.19	3.16	2.87	2.39
		38 X 184	3.64	3.31	2.89	4.17	3.79	3.15
		38 X 235	4.65	4.22	3.69	5.32	4.83	4.01
		38 X 286	5.65	5.14	4.49	6.47	5.88	4.88
	No. 3	38 X 89	1.69	1.51	1.23	1.74	1.51	1.23
		38 X 140	2.55	2.21	1.80	2.55	2.21	1.80
		38 X 184	3.37	2.92	2.38	3.37	2.92	2.38
		38 X 235	4.30	3.72	3.04	4.30	3.72	3.04
		38 X 286	5.23	4.53	3.70	5.23	4.53	3.70

Continued on next page

Table A-4 (Cont'd)
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 4.2 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
	Construction	38 X 89	1.69	1.54	1.34	1.94	1.73	1.41
	Standard	38 X 89	1.48	1.28	1.04	1.48	1.28	1.04
	Utility	38 X 89	1.03	0.89	0.73	1.03	0.89	0.73
Coast Species (includes Douglas Fir, Western Larch, Western Hemlock, Amabilis Fir, and Coast Sitka Spruce)	Select structural	38 X 89	1.91	1.74	1.52	2.19	1.99	1.74
		38 X 140	3.01	2.73	2.39	3.44	3.11	2.54
		38 X 184	3.97	3.60	3.15	4.54	4.10	3.35
		38 X 235	5.06	4.60	4.01	5.79	5.24	4.28
		38 X 286	6.16	5.59	4.89	7.05	6.37	5.20
	No. 1	38 X 89	1.91	1.74	1.52	2.19	1.98	1.61
		38 X 140	3.01	2.73	2.36	3.33	2.89	2.36
		38 X 184	3.97	3.60	3.11	4.40	3.81	3.11
		38 X 235	5.06	4.60	3.97	5.61	4.86	3.97
		38 X 286	6.16	5.59	4.82	6.82	5.91	4.82
	No. 2	38 X 89	1.85	1.68	1.46	2.07	1.79	1.46
		38 X 140	2.90	2.58	2.11	2.93	2.58	2.11
		38 X 184	3.83	3.40	2.78	3.93	3.40	2.78
		38 X 235	4.89	4.34	3.55	5.02	4.34	3.55
		38 X 286	5.95	5.29	4.31	6.10	5.29	4.31
	No. 3	38 X 89	1.53	1.33	1.08	1.53	1.33	1.08
		38 X 140	2.27	1.96	1.60	2.27	1.96	1.60
		38 X 184	2.99	2.59	2.11	2.99	2.59	2.11
		38 X 235	3.81	3.30	2.70	3.81	3.30	2.70
		38 X 286	4.64	4.02	3.28	4.64	4.02	3.28
	Construction	38 X 89	1.76	1.52	1.24	1.76	1.52	1.24
	Standard	38 X 89	1.32	1.14	0.93	1.32	1.14	0.93
	Utility	38 X 89	0.92	0.79	0.65	0.92	0.79	0.65
	Select structural	38 X 89	1.80	1.64	1.43	2.06	1.87	1.64
		38 X 140	2.83	2.58	2.25	3.25	2.95	2.49
		38 X 184	3.74	3.40	2.97	4.28	3.89	3.28
		38 X 235	4.77	4.33	3.79	5.46	4.96	4.18
		38 X 286	5.80	5.27	4.61	6.64	6.04	5.09

Continued on next page

Table A-4 (Cont'd)
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 4.2 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Spruce-Pine-Fir (includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir)	No. 1	38 X 89	1.80	1.64	1.43	2.06	1.87	1.58
		38 X 140	2.83	2.58	2.25	3.25	2.83	2.31
		38 X 184	3.74	3.40	2.97	4.28	3.73	3.05
		38 X 235	4.77	4.33	3.79	5.46	4.77	3.89
		38 X 286	5.80	5.27	4.61	6.64	5.80	4.73
	No. 2	38 X 89	1.74	1.58	1.38	1.99	1.75	1.43
		38 X 140	2.74	2.49	2.07	2.93	2.54	2.07
		38 X 184	3.61	3.28	2.73	3.87	3.35	2.73
		38 X 235	4.61	4.19	3.49	4.94	4.28	3.49
		38 X 286	5.61	5.10	4.25	6.01	5.20	4.25
	No. 3	38 X 89	1.52	1.31	1.07	1.52	1.31	1.07
		38 X 140	2.23	1.93	1.58	2.23	1.93	1.58
		38 X 184	2.95	2.55	2.08	2.95	2.55	2.08
		38 X 235	3.76	3.26	2.66	3.76	3.26	2.66
		38 X 286	4.58	3.96	3.23	4.58	3.96	3.23
	Construction	38 X 89	1.68	1.49	1.22	1.72	1.49	1.22
	Standard	38 X 89	1.30	1.12	0.92	1.30	1.12	0.92
	Utility	38 X 89	0.88	0.76	0.62	0.88	0.76	0.62
Western Cedars (includes Western Red Cedar and Pacific Coast Yellow Cedar)	Select structural	38 X 89	1.73	1.58	1.38	1.99	1.80	1.58
		38 X 140	2.73	2.48	2.16	3.12	2.84	2.48
		38 X 184	3.60	3.27	2.86	4.12	3.74	3.27
		38 X 235	4.59	4.17	3.64	5.26	4.78	4.17
		38 X 286	5.59	5.08	4.43	6.40	5.81	5.08
	No. 1	38 X 89	1.73	1.58	1.38	1.99	1.80	1.58
		38 X 140	2.73	2.48	2.16	3.12	2.84	2.34
		38 X 184	3.60	3.27	2.86	4.12	3.74	3.09
		38 X 235	4.59	4.17	3.64	5.26	4.78	3.94
		38 X 286	5.59	5.08	4.43	6.40	5.81	4.79
	No.2	38 X 89	1.68	1.52	1.33	1.92	1.74	1.45
		38 X 140	2.64	2.40	2.09	2.96	2.56	2.09
		38 X 184	3.48	3.16	2.76	3.90	3.38	2.76
		38 X 235	4.44	4.03	3.52	4.98	4.31	3.52
		38 X 286	5.40	4.91	4.28	6.06	5.24	4.28

Continued on next page

Table A-4 (Cont'd)
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 4.2 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
	No. 3	38 X 89	1.52	1.31	1.07	1.52	1.31	1.07
		38 X 140	2.23	1.93	1.58	2.23	1.93	1.58
		38 X 184	2.95	2.55	2.08	2.95	2.55	2.08
		38 X 235	3.76	3.26	2.66	3.76	3.26	2.66
		38 X 286	4.58	3.96	3.23	4.58	3.96	3.23
	Construction	38 X 89	1.61	1.47	1.23	1.74	1.51	1.23
	Standard	38 X 89	1.30	1.12	0.92	1.30	1.12	0.92
	Utility	38 X 89	0.88	0.76	0.62	0.88	0.76	0.62
Northern Species (includes any Canadian soft- wood covered by the NLGA Standard Grading Rules)	Select structural	38 X 89	1.73	1.58	1.38	1.99	1.80	1.58
		38 X 140	2.73	2.48	2.16	3.12	2.84	2.41
		38 X 184	3.60	3.27	2.86	4.12	3.74	3.18
		38 X 235	4.59	4.17	3.64	5.26	4.78	4.06
		38 X 286	5.59	5.08	4.43	6.40	5.81	4.94
	No. 1	38 X 89	1.73	1.58	1.38	1.99	1.80	1.53
		38 X 140	2.73	2.48	2.16	3.12	2.74	2.23
		38 X 184	3.60	3.27	2.86	4.12	3.61	2.95
		38 X 235	4.59	4.17	3.64	5.26	4.61	3.76
		38 X 286	5.59	5.08	4.43	6.40	5.61	4.58
	No. 2	38 X 89	1.68	1.52	1.33	1.92	1.70	1.39
		38 X 140	2.64	2.40	2.01	2.84	2.46	2.01
		38 X 184	3.48	3.16	2.64	3.74	3.24	2.64
		38 X 235	4.44	4.03	3.38	4.78	4.14	3.38
		38 X 286	5.40	4.91	4.11	5.81	5.03	4.11
	No. 3	38 X 89	1.46	1.26	1.03	1.46	1.26	1.03
		38 X 140	2.14	1.85	1.51	2.14	1.85	1.51
		38 X 184	2.82	2.44	1.99	2.82	2.44	1.99
		38 X 235	3.60	3.12	2.55	3.60	3.12	2.55
		38 X 286	4.38	3.79	3.10	4.38	3.79	3.10
	Construction	38 X 89	1.61	1.45	1.18	1.67	1.45	1.18
	Standard	38 X 89	1.25	1.08	0.88	1.25	1.08	0.88
	Utility	38 X 89	0.85	0.74	0.60	0.85	0.74	0.60

Continued on next page

Table A-4 (Cont'd)
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 4.2 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Northern Aspen (includes Aspen Poplar Large Tooth Aspen and Balsam Poplar)	Select structural	38 X 89	1.76	1.60	1.40	2.02	1.83	1.60
		38 X 140	2.77	2.52	2.20	3.17	2.88	2.49
		38 X 184	3.66	3.32	2.90	4.19	3.80	3.28
		38 X 235	4.67	4.24	3.70	5.34	4.85	4.18
		38 X 286	5.68	5.16	4.50	6.50	5.90	5.09
	No. 1	38 X 89	1.76	1.60	1.40	2.02	1.83	1.58
		38 X 140	2.77	2.52	2.20	3.17	2.83	2.31
		38 X 184	3.66	3.32	2.90	4.19	3.73	3.05
		38 X 235	4.67	4.24	3.70	5.34	4.77	3.89
		38 X 286	5.68	5.16	4.50	6.50	5.80	4.73
	No. 2	38 X 89	1.70	1.54	1.35	1.95	1.76	1.44
		38 X 140	2.67	2.43	2.07	2.93	2.54	2.07
		38 X 184	3.53	3.20	2.73	3.87	3.35	2.73
		38 X 235	4.50	4.09	3.49	4.94	4.28	3.49
		38 X 286	5.47	4.97	4.25	6.01	5.20	4.25
	No. 3	38 X 89	1.52	1.31	1.07	1.52	1.31	1.07
		38 X 140	2.23	1.93	1.58	2.23	1.93	1.58
		38 X 184	2.95	2.55	2.08	2.95	2.55	2.08
		38 X 235	3.76	3.26	2.66	3.76	3.26	2.66
		38 X 286	4.58	3.96	3.23	4.58	3.96	3.23
	Construction	38 X 89	1.63	1.48	1.22	1.72	1.49	1.22
	Standard	38 X 89	1.30	1.12	0.92	1.30	1.12	0.92
	Utility	38 X 89	0.88	0.76	0.62	0.88	0.76	0.62

Table A-5
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 3.3 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Douglas Fir-Larch (includes Douglas Fir and Western Larch)	Select structural	38 x 89	2.14	1.94	1.70	2.45	2.22	1.94
		38 x 140	3.36	3.05	2.67	3.85	3.50	3.05
		38 x 184	4.43	4.03	3.52	5.08	4.61	4.03
		38 x 235	5.66	5.14	4.49	6.48	5.88	5.14
		38 x 286	6.88	6.25	5.46	7.88	7.16	6.25
	No. 1	38 x 89	2.14	1.94	1.70	2.45	2.22	1.94
		38 x 140	3.36	3.05	2.67	3.85	3.50	3.03
		38 x 184	4.43	4.03	3.52	5.08	4.61	3.99
		38 x 235	5.66	5.14	4.49	6.48	5.88	5.10
		38 x 286	6.88	6.25	5.46	7.88	7.16	6.20
	No. 2	38 x 89	2.07	1.88	1.64	2.37	2.15	1.88
		38 x 140	3.25	2.95	2.58	3.72	3.34	2.72
		38 x 184	4.29	3.89	3.40	4.91	4.40	3.59
		38 x 235	5.47	4.97	4.34	6.26	5.61	4.58
		38 x 286	6.65	6.04	5.28	7.62	6.83	5.57
	No. 3	38 x 89	1.98	1.71	1.40	1.98	1.71	1.40
		38 x 140	2.92	2.52	2.06	2.92	2.52	2.06
		38 x 184	3.84	3.33	2.72	3.84	3.33	2.72
		38 x 235	4.91	4.25	3.47	4.91	4.25	3.47
		38 x 286	5.97	5.17	4.22	5.97	5.17	4.22
	Construction	38 x 89	1.98	1.80	1.57	2.26	1.96	1.60
	Standard	38 x 89	1.70	1.47	1.20	1.70	1.47	1.20
	Utility	38 x 89	1.16	1.00	0.82	1.16	1.00	0.82
	Select Structural	38 x 89	2.06	1.87	1.63	2.36	2.14	1.87
		38 x 140	3.24	2.94	2.57	3.71	3.37	2.81
		38 x 184	4.27	3.88	3.39	4.89	4.44	3.71
		38 x 235	5.45	4.95	4.33	6.24	5.67	4.73
		38 x 286	6.63	6.03	5.26	7.59	6.90	5.76
	No. 1	38 x 89	2.06	1.87	1.63	2.36	2.14	1.79
		38 x 140	3.24	2.94	2.57	3.70	3.20	2.61
		38 x 184	4.27	3.88	3.39	4.88	4.22	3.45
		38 x 235	5.45	4.95	4.33	6.22	5.39	4.40
		38 x 286	6.63	6.03	5.26	7.57	6.55	5.35

Continued on next page

Table A-5 (Cont'd)
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 3.3 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Hem-Fir (includes Western Hemlock and Amabilis Fir)	No. 2	38 X 89	1.99	1.81	1.58	2.28	1.99	1.62
		38 X 140	3.13	2.84	2.34	3.32	2.87	2.34
		38 X 184	4.13	3.75	3.09	4.37	3.79	3.09
		38 X 235	5.27	4.78	3.95	5.58	4.83	3.95
	No. 3	38 X 286	6.41	5.82	4.80	6.79	5.88	4.80
		38 x 89	1.70	1.47	1.20	1.70	1.47	1.20
		38 x 140	2.52	2.18	1.78	1.51	2.18	1.78
		38 x 184	3.32	2.87	2.34	3.32	2.87	2.34
		38 X 235	4.23	3.67	2.99	4.23	3.67	2.99
		38 X 286	5.15	4.46	3.64	5.15	4.46	3.64
	Construction	38 x 89	1.91	1.70	1.38	1.96	1.70	1.38
	Standard	38 x 89	1.47	1.27	1.04	1.47	1.27	1.04
	Utility	38 x 89	1.00	0.87	0.71	1.00	0.87	0.71
Eastern Hemlock- Tamarack (includes Eastern Hemlock and Tamarack)	Select structural	38 x 89	1.96	1.78	1.56	2.25	2.04	1.78
		38 x 140	3.09	2.80	2.45	3.53	3.21	2.80
		38 x 184	4.07	3.70	3.23	4.66	4.23	3.70
		38 X 235	5.19	4.72	4.12	5.95	5.40	4.72
	No. 1	38 X 286	6.32	5.74	5.01	7.23	6.57	5.74
		38 X 89	1.96	1.78	1.56	2.25	2.04	1.78
		38 X 140	3.09	2.80	2.45	3.53	3.21	2.80
		38 X 184	4.07	3.70	3.23	4.66	4.23	3.70
		38 X 235	5.19	4.72	4.12	5.95	5.40	4.72
		38 X 286	6.32	5.74	5.01	7.23	6.57	5.74
	No. 2	38 X 89	1.89	1.72	1.50	2.17	1.97	1.72
		38 X 140	2.98	2.70	2.36	3.41	3.09	2.61
		38 X 184	3.92	3.56	3.11	4.49	4.08	3.45
		38 X 235	5.01	4.55	3.97	5.73	5.21	4.40
	No. 3	38 X 286	6.09	5.53	4.83	6.97	6.33	5.35
		38 X 89	1.82	1.65	1.35	1.91	1.65	1.35
		38 X 140	2.80	2.42	1.98	2.80	2.42	1.98
		38 X 184	3.69	3.20	2.61	3.69	3.20	2.61
		38 X 235	4.71	4.08	3.33	4.71	4.08	3.33
		38 X 286	5.73	4.96	4.05	5.73	4.96	4.05

Continued on next page

Table A-5 (Cont'd)
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 3.3 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
	Construction	38 X 89	1.82	1.66	1.45	2.09	1.89	1.55
	Standard	38 X 89	1.62	1.40	1.14	1.62	1.40	1.14
	Utility	38 X 89	1.13	0.98	0.80	1.13	0.98	0.80
Coast Species (includes Douglas Fir, Western Larch, Amabilis Fir, and Coast Sitka Spruce)	Select Structural	38 X 89	2.06	1.87	1.63	2.36	2.14	1.87
		38 X 140	3.24	2.94	2.57	3.71	3.37	2.78
		38 X 184	4.27	3.88	3.39	4.89	4.44	3.67
		38 X 235	5.45	4.95	4.33	6.24	5.67	4.68
		38 X 286	6.63	6.03	5.26	7.59	6.90	5.70
	No. 1	38 X 89	2.06	1.87	1.63	2.36	2.14	1.77
		38 X 140	3.24	2.94	2.57	3.65	3.16	2.58
		38 X 184	4.27	3.88	3.39	4.82	4.17	3.40
		38 X 235	5.45	4.95	4.33	6.15	5.32	4.34
		38 X 286	6.63	6.03	5.26	7.48	6.47	5.29
	No. 2	38 X 89	1.99	1.81	1.58	2.26	1.96	1.60
		38 X 140	3.13	2.83	2.31	3.27	2.83	2.31
		38 X 184	4.13	3.73	3.04	4.31	3.73	3.04
		38 X 235	5.27	4.76	3.89	5.50	4.76	3.89
		38 X 286	6.41	5.79	4.73	6.69	5.79	4.73
	No. 3	38 X 89	1.68	1.46	1.19	1.68	1.46	1.19
		38 X 140	2.48	2.15	1.75	2.48	2.15	1.75
		38 X 184	3.27	2.83	2.31	3.27	2.83	2.31
		38 X 235	4.18	3.62	2.95	4.18	3.62	2.95
		38 X 286	5.08	4.40	3.59	5.08	4.40	3.59
	Construction	38 X 89	1.91	1.67	1.36	1.92	1.67	1.36
	Standard	38 X 89	1.44	1.25	1.02	1.44	1.25	1.02
	Utility	38 X 89	1.00	0.87	0.71	1.00	0.87	0.71
	Select structural	38 X 89	1.94	1.76	1.54	2.22	2.02	1.76
		38 X 140	3.05	2.77	2.42	3.50	3.18	2.72
		38 X 184	4.03	3.66	3.20	4.61	4.19	3.59
		38 X 235	5.14	4.67	4.08	5.88	5.35	4.58
		38 X 286	6.25	5.68	4.96	7.16	6.50	5.57

Continued on next page

Table A-5 (Cont'd)
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 3.3 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Spruce-Pine-Fir (includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir)	No. 1	38 X 89	1.94	1.76	1.54	2.22	2.02	1.73
		38 X 140	3.05	2.77	2.42	3.50	3.10	2.53
		38 X 184	4.03	3.66	3.20	4.61	4.09	3.34
		38 X 235	5.14	4.67	4.08	5.88	5.22	4.26
		38 X 286	6.25	5.68	4.96	7.16	6.35	5.18
	No. 2	38 X 89	1.88	1.70	1.49	2.15	1.92	1.57
		38 X 140	2.95	2.68	2.27	3.21	2.78	2.27
		38 X 184	3.89	3.54	3.00	4.24	3.67	3.00
		38 X 235	4.97	4.51	3.82	5.41	4.68	3.82
		38 X 286	6.04	5.49	4.65	6.58	5.70	4.65
	No. 3	38 X 89	1.66	1.44	1.17	1.66	1.44	1.17
		38 X 140	2.45	2.12	1.73	2.45	2.12	1.73
		38 X 184	3.23	2.80	2.28	3.23	2.80	2.28
		38 X 235	4.12	3.57	2.91	4.12	3.57	2.91
		38 X 286	5.01	4.34	3.54	5.01	4.34	3.54
	Construction	38 X 89	1.81	1.64	1.33	1.89	1.64	1.33
	Standard	38 X 89	1.42	1.23	1.00	1.42	1.23	1.00
	Utility	38 X 89	0.97	0.84	0.68	0.97	0.84	0.68
Western Cedars (includes Western Red Cedar and Pacific Coast Yellow Cedar)	Select structural	38 X 89	1.87	1.70	1.48	2.14	1.94	1.70
		38 X 140	2.94	2.67	2.33	3.37	3.06	2.67
		38 X 184	3.88	3.52	3.08	4.44	4.03	3.52
		38 X 235	4.95	4.50	3.93	5.66	5.15	4.50
		38 X 286	6.02	5.47	4.78	6.89	6.26	5.47
	No. 1	38 X 89	1.87	1.70	1.48	2.14	1.94	1.70
		38 X 140	2.94	2.67	2.33	3.37	3.06	2.57
		38 X 184	3.88	3.52	3.08	4.44	4.03	3.38
		38 X 235	4.95	4.50	3.93	5.66	5.15	4.32
		38 X 286	6.02	5.47	4.78	6.89	6.26	5.25
	No. 2	38 X 89	1.81	1.64	1.43	2.07	1.88	1.59
		38 X 140	2.84	2.58	2.25	3.24	2.81	2.29
		38 X 184	3.75	3.41	2.97	4.27	3.70	3.02
		38 X 235	4.78	4.35	3.80	5.45	4.72	3.85
		38 X 286	5.82	5.29	4.62	6.63	5.74	4.69

Continued on next page

Table A-5 (Cont'd)
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 3.3 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
	No. 3	38 X 89	1.66	1.44	1.17	1.66	1.44	1.17
		38 X 140	2.45	2.12	1.73	2.45	2.12	1.73
		38 X 184	3.23	2.80	2.28	3.23	2.80	2.28
		38 X 235	4.12	3.57	2.91	4.12	3.57	2.91
		38 X 286	5.01	4.34	3.54	5.01	4.34	3.54
	Construction	38 X 89	1.74	1.58	1.35	1.91	1.65	1.35
	Standard	38 X 89	1.42	1.23	1.00	1.42	1.23	1.00
	Utility	38 X 89	0.97	0.84	0.68	0.97	0.84	0.68
Northern Species (includes any Canadian soft- wood covered by the NLGA Standard Grading Rules)	Select structural	38 X 89	1.87	1.70	1.48	2.14	1.94	1.70
		38 X 140	2.94	2.67	2.33	3.37	3.06	2.65
		38 X 184	3.88	3.52	3.08	4.44	4.03	3.49
		38 X 235	4.95	4.50	3.93	5.66	5.15	4.45
		38 X 286	6.02	5.47	4.78	6.89	6.26	5.42
	No. 1	38 X 89	1.87	1.70	1.48	2.14	1.94	1.68
		38 X 140	2.94	2.67	2.33	3.37	3.00	2.45
		38 X 184	3.88	3.52	3.08	4.44	3.96	3.23
		38 X 235	4.95	4.50	3.93	5.66	5.05	4.12
		38 X 286	6.02	5.47	4.78	6.89	6.14	5.01
	No. 2	38 X 89	1.81	1.64	1.43	2.07	1.87	1.52
		38 X 140	2.84	2.58	2.20	3.11	2.69	2.20
		38 X 184	3.75	3.41	2.90	4.10	3.55	2.90
		38 X 235	4.78	4.35	3.70	5.23	4.53	3.70
		38 X 286	5.82	5.29	4.50	6.37	5.51	4.50
	No. 3	38 X 89	1.60	1.38	1.13	1.60	1.38	1.13
		38 X 140	2.34	2.03	1.66	2.34	2.03	1.66
		38 X 184	3.09	2.68	2.18	3.09	2.68	2.18
		38 X 235	3.95	3.42	2.79	3.95	3.42	2.79
		38 X 286	4.80	4.16	3.39	4.80	4.16	3.39
	Construction	38 X 89	1.74	1.58	1.30	1.84	1.59	1.30
	Standard	38 X 89	1.37	1.19	0.97	1.37	1.19	0.97
	Utility	38 X 89	0.93	0.81	0.66	0.93	0.81	0.66

Continued on next page

Table A-5 (Cont'd)
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 3.3 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Northern Aspen (includes Aspen Poplar, Large Tooth Aspen and Balsam Poplar)	Select structural	38 X 89	1.90	1.72	1.51	2.17	1.98	1.72
		38 X 140	2.99	2.71	2.37	3.42	3.11	2.71
		38 X 184	3.94	3.58	3.13	4.51	4.10	3.58
		38 X 235	5.03	4.57	3.99	5.75	5.23	4.57
		38 X 286	6.11	5.55	4.85	7.00	6.36	5.55
	No. 1	38 X 89	1.90	1.72	1.51	2.17	1.98	1.72
		38 X 140	2.99	2.71	2.37	3.42	3.10	2.53
		38 X 184	3.94	3.58	3.13	4.51	4.09	3.34
		38 X 235	5.03	4.57	3.99	5.75	5.22	4.26
		38 X 286	6.11	5.55	4.85	7.00	6.35	5.18
	No. 2	38 X 89	1.83	1.66	1.45	2.10	1.90	1.58
		38 X 140	2.88	2.62	2.27	3.21	2.78	2.27
		38 X 184	3.80	3.45	3.00	4.24	3.67	3.00
		38 X 235	4.85	4.40	3.82	5.41	4.68	3.82
		38 X 286	5.90	5.36	4.65	6.58	5.70	4.65
	No. 3	38 X 89	1.66	1.44	1.17	1.66	1.44	1.17
		38 X 140	2.45	2.12	1.73	2.45	2.12	1.73
		38 X 184	3.23	2.80	2.28	3.23	2.80	2.28
		38 X 235	4.12	3.57	2.91	4.12	3.57	2.91
		38 X 286	5.01	4.34	3.54	5.01	4.34	3.54
	Construction	38 X 89	1.76	1.60	1.33	1.89	1.64	1.33
	Standard	38 X 89	1.42	1.23	1.00	1.42	1.23	1.00
	Utility	38 X 89	0.97	0.84	0.68	0.97	0.84	0.68

Table A-6
Forming Part of Article 9.23.4.1.

**ROOF JOISTS - SUPPORTING CEILING
(GROUND SNOW LOAD 2.5 kPa)**

Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Douglas Fir-Larch (includes Douglas Fir and Western Larch)	Select structural	38 X 89	2.35	2.14	1.87	2.69	2.45	2.14
		38 X 140	3.70	3.36	2.94	4.24	3.85	3.36
		38 X 184	4.88	4.43	3.87	5.59	5.08	4.43
		38 X 235	6.23	5.66	4.94	7.13	6.48	5.66
		38 X 286	7.57	6.88	6.01	8.67	7.88	6.88
	No. 1	38 X 89	2.35	2.14	1.87	2.69	2.45	2.14
		38 X 140	3.70	3.36	2.94	4.24	3.85	3.36
		38 X 184	4.88	4.43	3.87	5.59	5.08	4.43
		38 X 235	6.23	5.66	4.94	7.13	6.48	5.66
		38 X 286	7.57	6.88	6.01	8.67	7.88	6.88
	No. 2	38 X 89	2.27	2.07	1.80	2.60	2.37	2.07
		38 X 140	3.58	3.25	2.84	4.10	3.72	3.04
		38 X 184	4.72	4.29	3.74	5.40	4.91	4.02
		38 x 235	6.02	5.47	4.78	6.89	6.26	5.12
		38 X 286	7.32	6.65	5.81	8.38	7.62	6.23
	No. 3	38 X 89	2.18	1.91	1.56	2.21	1.91	1.56
		38 X 140	3.26	2.82	2.30	3.26	2.82	2.30
		38 X 184	4.30	3.72	3.04	4.30	3.72	3.04
		38 X 235	5.49	4.75	3.88	5.49	4.75	3.88
		38 X 286	6.67	5.78	4.72	6.67	5.78	4.72
	Construction	38 X 89	2.18	1.98	1.73	2.50	2.19	1.79
	Standard	38 X 89	1.90	1.65	1.34	1.90	1.65	1.34
	Utility	38 X 89	1.30	1.12	0.92	1.30	1.12	0.92
	Select structural	38 X 89	2.27	2.06	1.80	2.60	2.36	2.06
		38 X 140	3.57	3.24	2.83	4.08	3.71	3.15
		38 X 184	4.70	4.27	3.73	5.38	4.89	4.15
		38 X 235	6.00	5.45	4.76	6.87	6.24	5.29
		38 X 286	7.30	6.63	5.79	8.36	7.59	6.44
	No. 1	38 X 89	2.27	2.06	1.80	2.60	2.36	2.00
		38 X 140	3.57	3.24	2.83	4.08	3.58	2.92
		38 X 184	4.70	4.27	3.73	5.38	4.72	3.85
		38 X 235	6.00	5.45	4.76	6.87	6.02	4.92
		38 X 286	7.30	6.63	5.79	8.36	7.33	5.98

Continued on next page

Table A-6 (Cont'd)
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 2.5 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Hem-Fir (includes Western Hemlock and Amabilis Fir)	No. 2	38 X 89	2.19	1.99	1.74	2.51	2.22	1.81
		38 X 140	3.44	3.13	2.62	3.71	3.21	2.62
		38 X 184	4.54	4.13	3.46	4.89	4.24	3.46
		38 X 235	5.80	5.27	4.41	6.24	5.40	4.41
		38 x 286	7.05	6.41	5.37	7.59	6.57	5.37
	No. 3	38 X 89	1.90	1.65	1.34	1.90	1.65	1.34
		38 X 140	2.81	2.44	1.99	2.81	2.44	1.99
		38 X 184	3.71	3.21	2.62	3.71	3.21	2.62
		38 X 235	4.73	4.10	3.35	4.73	4.10	3.35
		38 X 286	5.76	4.99	4.07	5.76	4.99	4.07
	Construction	38 X 89	2.11	1.90	1.55	2.19	1.90	1.55
	Standard	38 X 89	1.64	1.42	1.16	1.64	1.42	1.16
	Utility	38 X 89	1.12	0.97	0.79	1.12	0.97	0.79
Eastern Hemlock- Tamarack (includes Eastern Hemlock and Tamarack)	Select Structural	38 X 89	2.16	1.96	1.71	2.47	2.25	1.96
		38 X 140	3.40	3.09	2.70	3.89	3.53	3.09
		38 X 184	4.48	4.07	3.55	5.13	4.66	4.07
		38 X 235	5.72	5.19	4.54	6.55	5.95	5.19
		38 X 286	6.95	6.32	5.52	7.96	7.23	6.32
	No. 1	38 X 89	2.16	1.96	1.71	2.47	2.25	1.96
		38 X 140	3.40	3.09	2.70	3.89	3.53	3.09
		38 x 184	4.48	4.07	3.55	5.13	4.66	4.07
		38 X 235	5.72	5.19	4.51	6.55	5.95	5.19
		38 X 286	6.95	6.32	5.52	7.96	7.23	6.32
	No. 2	38 X 89	2.08	1.89	1.65	2.38	2.17	1.89
		38 X 140	3.28	2.98	2.60	3.75	3.41	2.92
		33 x 184	4.32	3.92	3.43	4.94	4.49	3.85
		38 x 235	5.51	5.01	4.37	6.31	5.73	4.92
		38 x 286	6.70	6.09	5.32	7.68	6.97	5.98
	No. 3	38 x 89	2.01	1.82	1.51	2.13	1.85	1.51
		38 x 140	3.13	2.71	2.21	3.13	2.71	2.21
		38 x 184	4.13	3.57	2.92	4.13	3.57	2.92
		38 x 235	5.27	4.56	3.72	5.27	4.56	3.72
		38 x 286	6.41	5.55	4.53	6.41	5.55	4.53

Continued on next page

Table A-6 (Cont'd)
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 2.5 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
	Construction	38 x 89	2.01	1.82	1.59	2.30	2.09	1.73
	Standard	38 x 89	1.81	1.57	1.28	1.81	1.57	1.28
	Utility	38 X 89	1.26	1.09	0.89	1.26	1.09	0.89
Coast Species (includes Douglas Fir, Western Larch, Western Hemlock, Amabilis Fir, and Coast Sitka Spruce)	Select structural	38 x 89	2.27	2.06	1.80	2.60	2.36	2.06
		38 X 140	3.57	3.24	2.83	4.08	3.71	3.11
		38 x 184	4.70	4.27	3.73	5.38	4.89	4.10
		38 x 235	6.00	5.45	4.76	6.87	6.24	5.24
		38 x 286	7.30	6.63	5.79	8.36	7.59	6.37
	No. 1	38 X 89	2.27	2.06	1.80	2.60	2.36	1.98
		38 x 140	3.57	3.24	2.83	4.08	3.54	2.89
		38 x 184	4.70	4.27	3.73	5.38	4.66	3.81
		38 X 235	6.00	5.45	4.76	6.87	5.95	4.86
		38 x 286	7.30	6.63	5.79	8.36	7.24	5.91
	No. 2	38 X 89	2.19	1.99	1.74	2.51	2.19	1.79
		38 x 140	3.44	3.13	2.58	3.65	3.16	2.58
		38 X 184	4.54	4.13	3.40	4.82	4.17	3.40
		38 X 235	5.80	5.27	4.34	6.15	5.32	4.34
		38 x 286	7.05	6.41	5.29	7.48	6.47	5.29
	No. 3	38 x 89	1.88	1.63	1.33	1.88	1.63	1.33
		38 x 140	2.78	2.40	1.96	2.78	2.40	1.96
		38 x 184	3.66	3.17	2.59	3.66	3.17	2.59
		38 X 235	4.67	4.05	3.30	4.67	4.05	3.30
		38 X 286	5.68	4.92	4.02	5.68	4.92	4.02
	Construction	38 X 89	2.11	1.86	1.52	2.15	1.86	1.52
	Standard	38 x 89	1.61	1.40	1.14	1.61	1.40	1.14
	Utility	38 x 89	1.12	0.97	0.79	1.12	0.97	0.79
	Select structural	38 X 89	2.14	1.94	1.70	2.45	2.22	1.94
		38 X 140	3.36	3.05	2.67	3.85	3.50	3.04
		38 X 184	4.43	4.03	3.52	5.08	4.61	4.02
		38 X 235	5.66	5.14	4.49	6.48	5.88	5.12
		38 X 286	6.88	6.25	5.46	7.88	7.16	6.23

Continued on next page

Table A-6 (Cont'd)
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 2.5 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Spruce-Pine-Fir (includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir)	No. 1	38 X 89	2.14	1.94	1.70	2.45	2.22	1.94
		38 X 140	3.36	3.05	2.67	3.85	3.47	2.83
		38 X 184	4.43	4.03	3.52	5.08	4.57	3.73
		38 X 235	5.66	5.14	4.49	6.48	5.84	4.77
		38 X 286	6.88	6.25	5.46	7.88	7.10	5.80
	No. 2	38 X 89	2.07	1.88	1.64	2.37	2.15	1.75
		38 X 140	3.25	2.95	2.54	3.59	3.11	2.54
		38 X 184	4.29	3.89	3.35	4.74	4.10	3.35
		38 X 235	5.47	4.97	4.28	6.05	5.24	4.28
		38 X 286	6.65	6.04	5.20	7.36	6.37	5.20
	No. 3	38 X 89	1.86	1.61	1.31	1.86	1.61	1.31
		38 X 140	2.74	2.37	1.93	2.74	2.37	1.93
		38 X 184	3.61	3.13	2.55	3.61	3.13	2.55
		38 X 235	4.61	3.99	3.26	4.61	3.99	3.26
		38 X 286	5.61	4.85	3.96	5.61	4.85	3.96
	Construction	38 X 89	1.99	1.81	1.49	2.11	1.83	1.49
	Standard	38 X 89	1.59	1.38	1.12	1.59	1.38	1.12
	Utility	38 X 89	1.08	0.94	0.76	1.08	0.94	0.76
Western Cedars (includes Western Red Cedar and Pacific Coast Yellow Cedar)	Select structural	38 X 89	2.06	1.87	1.63	2.36	2.14	1.87
		38 X 140	3.24	2.94	2.57	3.71	3.37	2.94
		38 X 184	4.27	3.88	3.39	4.89	4.44	3.88
		38 X 235	5.45	4.95	4.32	6.24	5.66	4.95
		38 X 286	6.63	6.02	5.26	7.58	6.89	6.02
	No. 1	38 X 89	2.06	1.87	1.63	2.36	2.14	1.87
		38 X 140	3.24	2.94	2.57	3.71	3.37	2.87
		38 X 184	4.27	3.88	3.39	4.89	4.44	3.78
		38 X 235	5.45	4.95	4.32	6.24	5.66	4.83
		38 X 286	6.63	6.02	5.26	7.58	6.89	5.87
	No. 2	38 X 89	1.99	1.81	1.58	2.28	2.07	1.78
		38 X 140	3.13	2.84	2.48	3.58	3.14	2.56
		38 X 184	4.13	3.75	3.27	4.72	4.14	3.38
		38 X 235	5.27	4.78	4.18	6.03	5.28	4.31
		38 X 286	6.41	5.82	5.08	7.33	6.42	5.24

Continued on next page

Table A-6 (Cont'd)
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 2.5 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
	No. 3	38 X 89	1.86	1.61	1.31	1.86	1.61	1.31
		38 X 140	2.74	2.37	1.93	2.74	2.37	1.93
		38 x 184	3.61	3.13	2.55	3.61	3.13	2.55
		38 x 235	4.61	3.99	3.26	4.61	3.99	3.26
		38 x 286	5.61	4.85	3.96	5.61	4.85	3.96
	Construction	38 X 89	1.92	1.74	1.51	2.13	1.85	1.51
	Standard	38 X 89	1.59	1.38	1.12	1.59	1.38	1.12
	Utility	38 X 89	1.08	0.94	0.76	1.08	0.94	0.76
Northern Species (includes any Canadian soft- wood covered by the NLGA Standard Grading Rules)	Select structural	38 X 89	2.06	1.87	1.63	2.36	2.14	1.87
		38 X 140	3.24	2.94	2.57	3.71	3.37	2.94
		38 X 184	4.27	3.88	3.39	4.89	4.44	3.88
		38 X 235	5.45	4.95	4.32	6.24	5.66	4.95
		38 X 286	6.63	6.02	5.26	7.58	6.89	6.02
	No. 1	38 X 89	2.06	1.87	1.63	2.36	2.14	1.87
		38 X 140	3.24	2.94	2.57	3.71	3.35	2.74
		38 X 184	4.27	3.88	3.39	4.89	4.42	3.61
		38 X 235	5.45	4.95	4.32	6.24	5.65	4.61
		38 X 286	6.63	6.02	5.26	7.58	6.87	5.61
	No. 2	38 X 89	1.99	1.81	1.58	2.28	2.07	1.70
		38 X 140	3.13	2.84	2.46	3.48	3.01	2.46
		38 X 184	4.13	3.75	3.24	4.58	3.97	3.24
		38 X 235	5.27	4.78	4.14	5.85	5.07	4.14
		38 x 286	6.41	5.82	5.03	7.12	6.16	5.03
	No. 3	38 x 89	1.79	1.55	1.26	1.79	1.55	1.26
		38 X 140	2.62	2.27	1.85	2.62	2.27	1.85
		38 X 184	3.46	2.99	2.44	3.46	2.99	2.44
		38 X 235	4.41	3.82	3.12	4.41	3.82	3.12
		38 X 286	5.37	4.65	3.79	5.37	4.65	3.79
	Construction	38 X 89	1.92	1.74	1.45	2.05	1.78	1.45
	Standard	38 x 89	1.53	1.33	1.08	1.53	1.33	1.08
	Utility	38 X 89	1.04	0.90	0.74	1.04	0.90	0.74

Continued on next page

Table A-6 (Cont'd)
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 2.5 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Northern Aspen (includes Aspen Poplar, Large Tooth Aspen and Balsam Poplar)	Select structural	38 X 89	2.09	1.90	1.66	2.39	2.17	1.90
		38 X 140	3.29	2.99	2.61	3.76	3.42	2.99
		38 x 184	4.34	3.94	3.44	4.96	4.51	3.94
		38 X 235	5.53	5.03	4.39	6.33	5.75	5.03
		38 x 286	6.73	6.11	5.34	7.70	7.00	6.11
	No. 1	38 X 89	2.09	1.90	1.66	2.39	2.17	1.90
		38 X 140	3.29	2.99	2.61	3.76	3.42	2.83
		38 X 184	4.34	3.94	3.44	4.96	4.51	3.73
		38 X 235	5.53	5.03	4.39	6.33	5.75	4.77
		38 X 286	6.73	6.11	5.34	7.70	7.00	5.80
	No. 2	38 X 89	2.02	1.83	1.60	2.31	2.10	1.76
		38 X 140	3.17	2.88	2.52	3.59	3.11	2.54
		38 X 184	4.18	3.80	3.32	4.74	4.10	3.35
		38 X 235	5.33	4.85	4.23	6.05	5.24	4.28
		38 X 286	6.49	5.90	5.15	7.36	6.37	5.20
	No. 3	38 X 89	1.86	1.61	1.31	1.86	1.61	1.31
		38 X 140	2.74	2.37	1.93	2.74	2.37	1.93
		38 X 184	3.61	3.13	2.55	3.61	3.13	2.55
		38 X 235	4.61	3.99	3.26	4.61	3.99	3.26
		38 X 286	5.61	4.85	3.96	5.61	4.85	3.96
	Construction	38 X 89	1.93	1.76	1.49	2.11	1.83	1.49
	Standard	38 X 89	1.59	1.38	1.12	1.59	1.38	1.12
	Utility	38 X 89	1.08	0.94	0.76	1.08	0.94	0.76

Table A-7
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 1.7 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Douglas Fir-Larch (includes Douglas Fir and Western Larch)	Select structural	38 x 89	2.69	2.45	2.14	3.09	2.80	2.45
		38 x 140	4.24	3.85	3.36	4.85	4.41	3.85
		38 x 184	5.59	5.08	4.43	6.40	5.81	5.08
		38 X 235	7.13	6.48	5.66	8.16	7.41	6.48
		38 X 286	8.67	7.88	6.88	9.93	9.02	7.88
	No. 1	38 x 89	2.69	2.45	2.14	3.09	2.80	2.45
		38 X 140	4.24	3.85	3.36	4.85	4.41	3.85
		38 x 184	5.59	5.08	4.43	6.40	5.81	5.08
		38 x 235	7.13	6.48	5.66	8.16	7.41	6.48
		38 x 286	8.67	7.88	6.88	9.93	9.02	7.88
	No. 2	38 x 89	2.60	2.37	2.07	2.98	2.71	2.37
		38 X 140	4.10	3.72	3.25	4.69	4.26	3.52
		38 X 184	5.40	4.91	4.29	6.18	5.62	4.64
		38 X 235	6.89	6.26	5.47	7.89	7.17	5.92
		38 x 286	8.38	7.62	6.65	9.60	8.72	7.20
	No.3	38 X 89	2.50	2.21	1.80	2.55	2.21	1.80
		38 X 140	3.77	3.26	2.66	3.77	3.26	2.66
		38 x 184	4.96	4.30	3.51	4.96	4.30	3.51
		38 X 235	6.34	5.49	4.48	6.34	5.49	4.48
		38 X 286	7.71	6.67	5.45	7.71	6.67	5.45
	Construction	38 X 89	2.50	2.27	1.98	2.86	2.53	2.07
	Standard	38 X 89	2.20	1.90	1.55	2.20	1.90	1.55
	Utility	38 X 89	1.50	1.30	1.06	1.50	1.30	1.06
	Select structural	38 X 89	2.60	2.36	2.06	2.97	2.70	2.36
		38 x 140	4.08	3.71	3.24	4.67	4.25	3.63
		38 x 184	5.38	4.89	4.27	6.16	5.60	4.79
		38 X 235	6.87	6.24	5.45	7.87	7.15	6.11
		38 X 286	8.36	7.59	6.63	9.57	8.69	7.44
	No. 1	38 X 89	2.60	2.36	2.06	2.97	2.70	2.31
		38 X 140	4.08	3.71	3.24	4.67	4.14	3.38
		38 X 184	5.38	4.89	4.27	6.16	5.45	4.45
		38 X 235	6.87	6.24	5.45	7.87	6.69	5.68
		38 x 286	8.36	7.59	6.63	9.57	8.46	6.91

Continued on next page

Table A-7 (Cont'd)
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 1.7 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Hem-Fir (includes Western Hemlock and Amabilis Fir)	No. 2	38 x 89	2.51	2.28	1.99	2.87	2.56	2.09
		38 X 140	3.94	3.58	3.03	4.28	3.71	3.03
		38 X 184	5.20	4.72	3.99	5.65	4.89	3.99
		38 X 235	6.64	6.03	5.10	7.21	6.24	5.10
		38 X 286	8.07	7.33	6.20	8.77	7.59	6.20
	No. 3	38 X 89	2.20	1.90	1.55	2.20	1.90	1.55
		38 X 140	3.25	2.81	2.30	3.25	2.81	2.30
		38 X 184	4.28	3.71	3.03	4.28	3.71	3.03
		38 X 235	5.47	4.73	3.87	5.47	4.73	3.87
		38 X 286	6.65	5.76	4.70	6.65	5.76	4.70
	Construction	38 x 89	2.41	2.19	1.79	2.53	2.19	1.79
	Standard	38 X 89	1.90	1.64	1.34	1.90	1.64	1.34
	Utility	38 X 89	1.30	1.12	0.92	1.30	1.12	0.92
Eastern Hemlock- Tamarack (includes Eastern Hemlock and Tamarack)	Select Structural	38 X 89	2.47	2.25	1.96	2.83	2.57	2.25
		38 X 140	3.89	3.53	3.09	4.45	4.05	3.53
		38 X 184	5.13	4.66	4.07	5.87	5.33	4.66
		38 X 235	6.55	5.95	5.19	7.49	6.81	5.95
		38 X 286	7.96	7.23	6.32	9.12	8.28	7.23
	No. 1	38 X 89	2.47	2.25	1.96	2.83	2.57	2.25
		38 X 140	3.89	3.53	3.09	4.45	4.05	3.53
		38 X 184	5.13	4.66	4.07	5.87	5.33	4.66
		38 X 235	6.55	5.95	5.19	7.49	6.81	5.95
		38 X 286	7.96	7.23	6.32	9.12	8.28	7.23
	No. 2	38 X 89	2.38	2.17	1.89	2.73	2.48	2.17
		38 X 140	3.75	3.41	2.98	4.29	3.90	3.38
		38 X 184	4.94	4.49	3.92	5.66	5.14	4.45
		38 X 235	6.31	5.73	5.01	7.22	6.56	5.68
		38 X 286	7.68	6.97	6.09	8.79	7.98	6.91
	No. 3	38 X 89	2.30	2.09	1.74	2.46	2.13	1.74
		38 X 140	3.61	3.13	2.55	3.61	3.13	2.55
		38 X 184	4.77	4.13	3.37	4.77	4.13	3.37
		38 X 235	6.08	5.27	4.30	6.08	5.27	4.30
		38 X 286	7.40	6.41	5.23	7.40	6.41	5.23

Continued on next page

Table A-7 (Cont'd)
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 1.7 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
	Construction	38 X 89	2.30	2.09	1.82	2.63	2.39	2.00
	Standard	38 X 89	2.09	1.81	1.48	2.09	1.81	1.48
	Utility	38 X 89	1.46	1.26	1.03	1.46	1.26	1.03
Coast Species (includes Douglas Fir, Western Larch, Western Hemlock, Amabilis Fir, and Coast Sitka Spruce)	Select structural	38 X 89	2.60	2.36	2.06	2.97	2.70	2.36
		38 X 140	4.08	3.71	3.24	4.67	4.25	3.59
		38 X 184	5.38	4.89	4.27	6.16	5.60	4.74
		38 X 235	6.87	6.24	5.45	7.87	7.15	6.05
		38 X 286	8.36	7.59	6.63	9.57	8.69	7.36
	No. 1	38 X 89	2.60	2.36	2.06	2.97	2.70	2.29
		38 X 140	4.08	3.71	3.24	4.67	4.08	3.33
		38 X 184	5.38	4.89	4.27	6.16	5.39	4.40
		38 X 235	6.87	6.24	5.45	7.87	6.87	5.61
		38 X 286	8.36	7.59	6.63	9.57	8.36	6.82
	No. 2	38 X 89	2.51	2.28	1.99	2.87	2.53	2.07
		38 X 140	3.94	3.58	2.98	4.22	3.65	2.98
		38 X 184	5.20	4.72	3.93	5.56	4.82	3.93
		38 X 235	6.64	6.03	5.02	7.10	6.15	5.02
		38 X 286	8.07	7.33	6.10	8.63	7.48	6.10
	No. 3	38 X 89	2.17	1.88	1.53	2.17	1.88	1.53
		38 X 140	3.21	2.78	2.27	3.21	2.78	2.27
		38 X 184	4.23	3.66	2.99	4.23	3.66	2.99
		38 X 235	5.40	4.67	3.81	5.40	4.67	3.81
		38 X 286	6.56	5.68	4.64	6.56	5.68	4.64
	Construction	38 X 89	2.41	2.15	1.76	2.49	2.15	1.76
	Standard	38 X 89	1.87	1.61	1.32	1.87	1.61	1.32
	Utility	38 X 89	1.30	1.12	0.92	1.30	1.12	0.92
	Select structural	38 X 89	2.45	2.22	1.94	2.80	2.55	2.22
		38 X 140	3.85	3.50	3.05	4.41	4.00	3.50
		38 X 184	5.08	4.61	4.03	5.81	5.28	4.61
		38 X 235	6.48	5.88	5.14	7.41	6.74	5.88
		38 X 286	7.88	7.16	6.25	9.02	8.19	7.16

Continued on next page

Table A-7 (Cont'd)
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 1.7 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Spruce-Pine Fir (includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir)	No. 1	38 X 89	2.45	2.22	1.94	2.80	2.55	2.22
		38 X 140	3.85	3.50	3.05	4.41	4.00	3.27
		38 X 184	5.08	4.61	4.03	5.81	5.28	4.31
		38 X 235	6.48	5.88	5.14	7.41	6.74	5.50
		38 X 286	7.88	7.16	6.25	9.02	8.19	6.70
	No. 2	38 X 89	2.37	2.15	1.88	2.71	2.46	2.02
		38 X 140	3.72	3.38	2.93	4.15	3.59	2.93
		38 X 184	4.91	4.46	3.87	5.47	4.74	3.87
		38 X 235	6.26	5.69	4.94	6.99	6.05	4.94
		38 X 286	7.62	6.92	6.01	8.50	7.36	6.01
	No. 3	38 X 89	2.15	1.86	1.52	2.15	1.86	1.52
		38 X 140	3.16	2.74	2.23	3.16	2.74	2.23
		38 X 184	4.17	3.61	2.95	4.17	3.61	2.95
		38 X 235	5.32	4.61	3.76	5.32	4.61	3.76
		38 X 286	6.47	5.61	4.58	6.47	5.61	4.58
	Construction	38 X 89	2.28	2.07	1.72	2.44	2.11	1.72
	Standard	38 X 89	1.84	1.59	1.30	1.84	1.59	1.30
	Utility	38 X 89	1.25	1.08	0.88	1.25	1.08	0.88
Western Cedars (includes Western Red Cedar and Pacific Coast	Select structural	38 X 89	2.36	2.14	1.87	2.70	2.45	2.14
		38 X 140	3.71	3.37	2.94	4.24	3.85	3.37
		38 X 184	4.89	4.44	3.88	5.59	5.08	4.44
		38 X 235	6.24	5.66	4.95	7.14	6.49	5.66
		38 X 286	7.58	6.89	6.02	8.68	7.89	6.89
	No. 1	38 X 89	2.36	2.14	1.87	2.70	2.45	2.14
		38 X 140	3.71	3.37	2.94	4.24	3.85	3.31
		38 X 184	4.89	4.44	3.88	5.59	5.08	4.37
		38 X 235	6.24	5.66	4.95	7.14	6.49	5.58
		38 X 286	7.58	6.89	6.02	8.68	7.89	6.78
	No. 2	38 X 89	2.28	2.07	1.81	2.61	2.37	2.05
		38 X 140	3.58	3.25	2.84	4.10	3.62	2.96
		38 X 184	4.72	4.29	3.75	5.41	4.78	3.90
		38 X 235	6.03	5.48	4.78	6.90	6.10	4.98
		38 x 286	7.33	6.66	5.82	8.39	7.42	6.06

Continued on next page

Table A-7 (Cont'd)
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 1.7 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
	No. 3	38 X 89	2.15	1.86	1.52	2.15	1.86	1.52
		38 X 140	3.16	2.74	2.23	3.16	2.74	2.23
		38 X 184	4.17	3.61	2.95	4.17	3.61	2.95
		38 X 235	5.32	4.61	3.76	5.32	4.61	3.76
		38 X 286	6.47	5.61	4.58	6.47	5.61	4.58
	Construction	38 X 89	2.19	1.99	1.74	2.46	2.13	1.74
	Standard	38 X 89	1.84	1.59	1.30	1.84	1.59	1.30
	Utility	38 X 89	1.25	1.08	0.88	1.25	1.08	0.88
Northern Species (includes any Canadian soft- wood covered by the NLGA Standard Grading Rules)	Select structural	38 X 89	2.36	2.14	1.87	2.70	2.45	2.14
		38 X 140	3.71	3.37	2.94	4.24	3.85	3.37
		38 X 184	4.89	4.44	3.88	5.59	5.08	4.44
		38 X 235	6.24	5.66	4.95	7.14	6.49	5.66
		38 X 286	7.58	6.89	6.02	8.68	7.89	6.89
	No. 1	38 X 89	2.36	2.14	1.87	2.70	2.45	2.14
		38 X 140	3.71	3.37	2.94	4.24	3.85	3.16
		38 X 184	4.89	4.44	3.88	5.59	5.08	4.17
		38 X 235	6.24	5.66	4.95	7.14	6.49	5.32
		38 X 286	7.58	6.89	6.02	8.68	7.89	6.47
	No. 2	38 X 89	2.28	2.07	1.81	2.61	2.37	1.97
		38 X 140	3.58	3.25	2.84	4.02	3.48	2.84
		38 X 184	4.72	4.29	3.74	5.29	4.58	3.74
		38 X 235	6.03	5.48	4.78	6.76	5.85	4.78
		38 X 286	7.33	6.66	5.81	8.22	7.12	5.81
	No. 3	38 X 89	2.07	1.79	1.46	2.07	1.79	1.46
		38 X 140	3.03	2.62	2.14	3.03	2.62	2.14
		38 X 184	3.99	3.46	2.82	3.99	3.46	2.82
		38 X 235	5.10	4.41	3.60	5.10	4.41	3.60
		38 X 286	6.20	5.37	4.38	6.20	5.37	4.38
	Construction	38 X 89	2.19	1.99	1.67	2.37	2.05	1.67
	Standard	38 X 89	1.77	1.53	1.25	1.77	1.53	1.25
	Utility	38 X 89	1.21	1.04	0.85	1.21	1.04	0.85

Continued on next page

Table A-7 (Cont'd)
Forming Part of Article 9.23.4.1.

ROOF JOISTS - SUPPORTING CEILING (GROUND SNOW LOAD 1.7 kPa)								
Commercial Designation	Grade	Nominal Size, mm	Gypsum Board or Plastered Ceiling			Other Ceilings		
			Joist Spacing			Joist Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Northern Aspen (includes Aspen Poplar, Large Tooth Aspen and Balsam Poplar)	Select structural	38 X 89	2.39	2.17	1.90	2.74	2.49	2.17
		38 X 140	3.76	3.42	2.99	4.31	3.92	3.42
		38 X 184	4.96	4.51	3.94	5.68	5.16	4.51
		38 X 235	6.33	5.75	5.03	7.25	6.59	5.75
		38 X 286	7.70	7.00	6.11	8.82	8.01	7.00
	No. 1	38 X 89	2.39	2.17	1.90	2.74	2.49	2.17
		38 X 140	3.76	3.42	2.99	4.31	3.92	3.27
		38 X 184	4.96	4.51	3.94	5.68	5.16	4.31
		38 X 235	6.33	5.75	5.03	7.25	6.59	5.50
		38 X 286	7.70	7.00	6.11	8.82	8.01	6.70
	No. 2	38 X 89	2.31	2.10	1.83	2.64	2.40	2.04
		38 X 140	3.63	3.30	2.88	4.15	3.59	2.93
		38 X 184	4.79	4.35	3.80	5.47	4.74	3.87
		38 X 235	6.11	5.55	4.85	6.99	6.05	4.94
		38 X 286	7.43	6.75	5.90	8.50	7.36	6.01
	No. 3	38 X 89	2.15	1.86	1.52	2.15	1.86	1.52
		38 X 140	3.16	2.74	2.23	3.16	2.74	2.23
		38 X 184	4.17	3.61	2.95	4.17	3.61	2.95
		38 X 235	5.32	4.61	3.76	5.32	4.61	3.76
		38 X 286	6.47	5.61	4.58	6.47	5.61	4.58
	Construction	38 X 89	2.22	2.01	1.72	2.44	2.11	1.72
	Standard	38 X 89	1.84	1.59	1.30	1.84	1.59	1.30
	Utility	38 X 89	1.25	1.08	0.88	1.25	1.08	0.88

Table A-8
Forming Part of Article 9.23.4.1.

RAFTERS - NOT SUPPORTING CEILING (GROUND SNOW LOADS 4.2 AND 3.3 kPa)								
Commercial Designation	Grade	Nominal Size,	4.2 kPa			3.3 kPa		
			Rafter Spacing			Rafter Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
		mm	m	m	m	m	m	m
Douglas Fir-Larch (includes Douglas Fir and Western Larch)	Select structural	38 X 89	2.50	2.27	1.98	2.69	2.45	2.14
		38 X 140	3.93	3.57	3.09	4.24	3.85	3.36
		38 X 184	5.19	4.17	4.07	5.59	5.08	4.43
		38 X 235	6.62	6.01	5.19	7.13	6.48	5.66
		38 X 286	8.05	7.31	6.32	8.67	7.88	6.88
	No. 1	38 X 89	2.50	2.27	1.96	2.69	2.45	2.14
		38 X 140	3.93	3.50	2.86	4.24	3.85	3.16
		38 X 184	5.19	4.62	3.77	5.59	5.08	4.16
		38 X 235	6.62	5.90	4.81	7.13	6.48	5.31
		38 X 286	8.05	7.17	5.86	8.67	7.88	6.46
	No. 2	38 X 89	2.42	2.19	1.79	2.60	2.37	1.97
		38 X 140	3.64	3.15	2.57	4.02	3.48	2.84
		38 X 184	4.80	4.16	3.39	5.30	4.59	3.74
		38 X 235	6.13	5.30	4.33	6.76	5.85	4.78
		38 X 286	7.45	6.45	5.27	8.22	7.12	5.81
	No. 3	38 X 89	1.87	1.62	1.32	2.06	1.78	1.46
		38 X 140	2.75	2.38	1.95	3.04	2.63	2.15
		38 X 184	3.63	3.15	2.57	4.01	3.47	2.83
		38 X 235	4.64	4.01	3.28	5.12	4.43	3.62
		38 X 286	5.64	4.88	3.99	6.22	5.39	4.40
	Construction	38 X 89	2.14	1.85	1.51	2.36	2.04	1.67
	Standard	38 X 89	1.61	1.39	1.14	1.77	1.54	1.25
	Utility	38 X 89	1.09	0.95	0.77	1.21	1.05	0.85
	Select structural	38 X 89	2.41	2.19	1.84	2.60	2.36	2.03
		38 X 140	3.76	3.26	2.66	4.08	3.59	2.93
		38 X 184	4.96	4.29	3.51	5.38	4.74	3.87
		38 X 235	6.33	5.48	4.47	6.87	6.05	4.94
		38 X 286	7.70	6.67	5.44	8.36	7.36	6.01
	No. 1	38 X 89	2.39	2.07	1.69	2.60	2.29	1.86
		38 X 140	3.49	3.03	2.47	3.86	3.34	2.72
		38 X 184	4.61	3.99	3.26	5.08	4.40	3.59
		38 X 235	5.88	5.09	4.16	6.49	5.62	4.59
		38 X 286	7.15	6.19	5.06	7.89	6.83	5.58

Continued on next page

Table A-8 (Cont'd)
Forming Part of Article 9.23.4.1.

RAFTERS - NOT SUPPORTING CEILING (GROUND SNOW LOADS 4.2 AND 3.3 kPa)								
Commercial Designation	Grade	Nominal Size, mm	4.2 kPa			3.3 kPa		
			Rafter Spacing			Rafter Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Hem-Fir (includes Western Hemlock and Amabilis Fir)	No. 2	38 X 89	2.17	1.88	1.53	2.39	2.07	1.69
		38 X 140	3.13	2.71	2.21	3.46	2.99	2.44
		38 X 184	4.13	3.58	2.92	4.56	3.95	3.22
		38 X 235	5.27	4.57	3.73	5.82	5.04	4.11
		38 X 286	6.42	5.56	4.54	7.08	6.13	5.00
	No. 3	38 X 89	1.61	1.39	1.14	1.77	1.54	1.25
		38 X 140	2.38	2.06	1.68	2.62	2.27	1.85
		38 X 184	3.13	2.71	2.22	3.46	3.00	2.44
		38 X 235	4.00	3.46	2.83	4.41	3.82	3.12
		38 X 286	4.87	4.21	3.44	5.37	4.65	3.80
	Construction	38 X 89	1.85	1.60	1.31	2.04	1.77	1.44
	Standard	38 X 89	1.39	1.20	0.98	1.53	1.32	1.08
	Utility	38 X 89	0.95	0.82	0.67	1.05	0.90	0.74
Eastern Hemlock-Tamarack (includes Eastern Hemlock and Tamarack)	Select structural	38 X 89	2.30	2.09	1.82	2.47	2.25	1.96
		38 X 140	3.61	3.28	2.86	3.89	3.53	3.09
		38 X 184	4.76	4.33	3.78	5.13	4.66	4.07
		38 X 235	6.08	5.52	4.82	6.55	5.95	5.19
		38 X 286	7.39	6.71	5.87	7.96	7.23	6.32
	No. 1	38 X 89	2.30	2.09	1.82	2.47	2.25	1.96
		38 X 140	3.61	3.28	2.75	3.89	3.53	3.04
		38 X 184	4.76	4.33	3.63	5.13	4.66	4.01
		38 X 235	6.08	5.52	4.64	6.55	5.95	5.12
		38 X 286	7.39	6.71	5.64	7.96	7.23	6.22
	No. 2	38 X 89	2.21	2.01	1.72	2.38	2.17	1.89
		38 X 140	3.48	3.03	2.47	3.75	3.34	2.72
		38 X 184	4.59	3.99	3.26	4.94	4.40	3.59
		38 X 235	5.86	5.09	4.16	6.31	5.62	4.59
		38 X 286	7.12	6.19	5.06	7.68	6.83	5.58
	No. 3	38 X 89	1.80	1.56	1.27	1.99	1.72	1.40
		38 X 140	2.64	2.29	1.87	2.92	2.53	2.06
		38 X 184	3.49	3.02	2.46	3.85	3.33	2.72
		38 X 235	4.45	3.85	3.15	4.91	4.25	3.47
		38 X 286	5.41	4.69	3.83	5.97	5.17	4.22

Continued on next page

Table A-8 (Cont'd)
Forming Part of Article 9.23.4.1.

RAFTERS - NOT SUPPORTING CEILING (GROUND SNOW LOADS 4.2 AND 3.3 kPa)								
Commercial Designation	Grade	Nominal Size, mm	4.2 kPa			3.3 kPa		
			Rafter Spacing			Rafter Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
	Construction	38 X 89	2.07	1.79	1.46	2.28	1.97	1.61
	Standard	38 X 89	1.53	1.32	1.08	1.69	1.46	1.19
	Utility	38 X 89	1.07	0.92	0.75	1.18	1.02	0.83
Coast Species (includesir- Douglas Farch, Western Hemlock- Amabilis Fir, and Coast Sitka Spruce)	Select structural	38 X 89	2.41	2.19	1.81	2.60	2.36	2.00
		38 X 140	3.72	3.22	2.63	4.08	3.56	2.90
		38 X 184	4.91	4.25	3.47	5.38	4.69	3.83
		38 X 235	6.26	5.42	4.43	6.87	5.98	4.88
		38 X 286	7.62	6.60	5.38	8.36	7.28	5.94
	No. 1	38 X 89	2.37	2.05	1.67	2.60	2.26	1.85
		38 X 140	3.45	2.99	2.44	3.81	3.30	2.69
		38 X 184	4.55	3.94	3.22	5.02	4.35	3.55
		38 X 235	5.81	5.03	4.11	6.41	5.55	4.53
		38 X 286	7.06	6.12	4.99	7.79	6.75	5.51
	No. 2	38 X 89	2.14	1.85	1.51	2.36	2.04	1.67
		38 X 140	3.09	2.67	2.18	3.41	2.95	2.41
		38 X 184	4.07	3.52	2.88	4.49	3.89	3.17
		38 X 235	5.19	4.50	3.67	5.73	4.96	4.05
		38 X 286	6.32	5.47	4.47	6.97	6.04	4.93
	No. 3	38 X 89	1.59	1.38	1.12	1.75	1.52	1.24
		38 X 140	2.35	2.03	1.66	2.59	2.24	1.83
		38 X 184	3.09	2.68	2.19	3.41	2.96	2.41
		38 X 235	3.95	3.42	2.79	4.36	3.77	3.08
		38 X 286	4.80	4.16	3.39	5.30	4.59	3.75
	Construction	38 X 89	1.82	1.57	1.28	2.01	1.74	1.42
	Standard	38 X 89	1.36	1.18	0.96	1.51	1.30	1.06
	Utility	38 X 89	0.95	0.82	0.67	1.05	0.90	0.74
	Select structural	38 X 89	2.27	2.06	1.78	2.45	2.22	1.94
		38 X 140	3.57	3.15	2.57	3.85	3.48	2.84
		38 X 184	4.71	4.16	3.39	5.08	4.59	3.74
		38 X 235	6.01	5.30	4.33	6.48	5.85	4.78
		38 X 286	7.31	6.45	5.27	7.88	7.12	5.81

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Table A-8 (Cont'd)
Forming Part of Article 9.23.4.1.

RAFTERS - NOT SUPPORTING CEILING (GROUND SNOW LOADS 4.2 AND 3.3 kPa)								
Commercial Designation	Grade	Nominal Size, mm	4.2 kPa			3.3 kPa		
			Rafter Spacing			Rafter Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Spruce-Pine-Fir (includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir)	No. 1	38 X 89	2.27	2.00	1.64	2.45	2.21	1.80
		38 X 140	3.39	2.93	2.39	3.74	3.23	2.64
		38 X 184	4.46	3.87	3.16	4.93	4.27	3.48
		38 X 235	5.70	4.93	4.03	6.29	5.44	4.44
		38 X 286	6.93	6.00	4.90	7.65	6.62	5.41
	No. 2	38 X 89	2.10	1.81	1.48	2.31	2.00	1.63
		38 X 140	3.04	2.63	2.15	3.35	2.90	2.37
		38 X 184	4.01	3.47	2.83	4.42	3.83	3.12
		38 X 235	5.11	4.43	3.61	5.64	4.88	3.99
		38 X 286	6.22	5.38	4.40	6.86	5.94	4.85
	No. 3	38 X 89	1.57	1.36	1.11	1.73	1.50	1.22
		38 X 140	2.31	2.00	1.63	2.55	2.21	1.80
		38 X 184	3.05	2.64	2.16	3.37	2.92	2.38
		38 X 235	3.89	3.37	2.75	4.30	3.72	3.04
		38 X 286	4.74	4.10	3.35	5.23	4.53	3.69
	Construction	38 X 89	1.79	1.55	1.26	1.97	1.71	1.39
	Standard	38 X 89	1.34	1.16	0.95	1.48	1.28	1.05
	Utility	38 X 89	0.92	0.79	0.65	1.01	0.87	0.71
Western Cedars (includes Western Red Cedar and Pacific Coast Yellow Cedar)	Select structural	38 X 89	2.19	1.99	1.73	2.36	2.14	1.87
		38 X 140	3.44	3.12	2.60	3.71	3.37	2.87
		38 X 184	4.54	4.12	3.43	4.89	4.44	3.79
		38 X 235	5.79	5.26	4.38	6.24	5.66	4.83
		38 X 286	7.04	6.40	5.33	7.58	6.89	5.88
	No. 1	38 X 89	2.19	1.99	1.65	2.36	2.14	1.83
		38 X 140	3.43	2.97	2.42	3.71	3.28	2.67
		38 X 184	4.52	3.92	3.20	4.89	4.32	3.53
		38 X 235	5.77	5.00	4.08	6.24	5.51	4.50
		38 X 286	7.02	6.08	4.96	7.58	6.71	5.48
	No. 2	38 X 89	2.11	1.84	1.50	2.28	2.03	1.66
		38 X 140	3.06	2.65	2.16	3.38	2.93	2.39
		38 X 184	4.04	3.50	2.85	4.46	3.86	3.15
		38 X 235	5.15	4.46	3.64	5.69	4.92	4.02
		38 X 286	6.27	5.43	4.43	6.92	5.99	4.89

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Table A-8 (Cont'd)
Forming Part of Article 9.23.4.1.

RAFTERS - NOT SUPPORTING CEILING (GROUND SNOW LOADS 4.2 AND 3.3 kPa)								
Commercial Designation	Grade	Nominal Size,	4.2 kPa			3.3 kPa		
			Rafter Spacing			Rafter Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
		mm	m	m	m	m	m	m
	No. 3	38 X 89	1.57	1.36	1.11	1.73	1.50	1.22
		38 X 140	2.31	2.00	1.63	2.55	2.21	1.80
		38 X 184	3.05	2.64	2.16	3.37	2.92	2.38
		38 X 235	3.89	3.37	2.75	4.30	3.72	3.04
		38 X 286	4.74	4.10	3.35	5.23	4.53	3.69
	Construction	38 X 89	1.80	1.56	1.27	1.99	1.72	1.40
	Standard	38 X 89	1.34	1.16	0.95	1.48	1.28	1.05
	Utility	38 X 89	0.92	0.79	0.65	1.01	0.87	0.71
Northern Species (includes any Canadian soft-wood covered by the NLGA Standard Grading Rules)	Select structural	38 X 89	2.19	1.99	1.72	2.36	2.14	1.87
		38 X 140	3.44	3.06	2.50	3.71	3.37	2.76
		38 X 184	4.54	4.04	3.30	4.89	4.44	3.64
		38 X 235	5.79	5.15	4.21	6.24	5.66	4.64
		38 X 286	7.04	6.27	5.12	7.58	6.89	5.65
	No. 1	38 X 89	2.19	1.95	1.59	2.36	2.14	1.75
		38 X 140	3.27	2.83	2.31	3.61	3.13	2.55
		38 X 184	4.32	3.74	3.05	4.76	4.12	3.37
		38 X 235	5.51	4.77	3.89	6.08	5.26	4.30
		38 X 286	6.70	5.80	4.74	7.39	6.40	5.23
	No. 2	38 X 89	2.04	1.76	1.44	2.25	1.95	1.59
		38 X 140	2.94	2.54	2.08	3.24	2.81	2.29
		38 X 184	3.87	3.35	2.74	4.27	3.70	3.02
		38 X 235	4.94	4.28	3.49	5.46	4.72	3.86
		38 X 286	6.01	5.21	4.25	6.64	5.75	4.69
	No. 3	38 X 89	1.51	1.31	1.07	1.67	1.44	1.18
		38 X 140	2.21	1.92	1.56	2.44	2.12	1.73
		38 X 184	2.92	2.53	2.06	3.22	2.79	2.28
		38 X 235	3.73	3.23	2.63	4.11	3.56	2.91
		38 X 286	4.54	3.93	3.21	5.00	4.33	3.54
	Construction	38 X 89	1.73	1.50	1.22	1.91	1.66	1.35
	Standard	38 X 89	1.30	1.12	0.92	1.43	1.24	1.01
	Utility	38 X 89	0.88	0.76	0.62	0.97	0.84	0.69

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Table A-8 (Cont'd)
Forming Part of Article 9.23.4.1.

RAFTERS - NOT SUPPORTING CEILING (GROUND SNOW LOADS 4.2 AND 3.3 kPa)								
Commercial Designation	Grade	Nominal Size, mm	4.2 kPa			3.3 kPa		
			Rafter Spacing			Rafter Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Northern Aspen (includes Aspen Poplar, Large Tooth Aspen and Balsam Poplar)	Select structural	38 X 89	2.22	2.02	1.76	2.39	2.17	1.90
		38 X 140	3.49	3.15	2.57	3.76	3.42	2.84
		38 X 184	4.61	4.16	3.39	4.96	4.51	3.74
		38 X 235	5.88	5.30	4.33	6.33	5.75	4.78
		38 X 286	7.15	6.45	5.27	7.70	7.00	5.81
	No. 1	38 X 89	2.22	2.00	1.64	2.39	2.17	1.80
		38 X 140	3.39	2.93	2.39	3.74	3.23	2.64
		38 X 184	4.46	3.87	3.16	4.93	4.27	3.48
		38 X 235	5.70	4.93	4.03	6.29	5.44	4.44
		38 X 286	6.93	6.00	4.90	7.65	6.62	5.41
	No. 2	38 X 89	2.11	1.83	1.49	2.31	2.02	1.65
		38 X 140	3.04	2.63	2.15	3.35	2.90	2.37
		38 X 184	4.01	3.47	2.83	4.42	3.83	3.12
		38 X 235	5.11	4.43	3.61	5.64	4.88	3.99
		38 X 286	6.22	5.38	4.40	6.86	5.94	4.85
	No. 3	38 X 89	1.57	1.36	1.11	1.73	1.50	1.22
		38 X 140	2.31	2.00	1.63	2.55	2.21	1.80
		38 X 184	3.05	2.64	2.16	3.37	2.92	2.38
		38 X 235	3.89	3.37	2.75	4.30	3.72	3.04
		38 X 286	4.74	4.10	3.35	5.23	4.53	3.69
	Construction	38 X 89	1.79	1.55	1.26	1.97	1.71	1.39
	Standard	38 X 89	1.34	1.16	0.95	1.48	1.28	1.05
	Utility	38 X 89	0.92	0.79	0.65	1.01	0.87	0.71

Table A-9
Forming Part of Article 9.23.4.1.

RAFTERS - NOT SUPPORTING CEILING (GROUND SNOW LOADS 2.5 AND 1.7 kPa)								
Commercial Designation	Grade	Nominal Size, mm	2.5 kPa			1.7 kPa		
			Rafter Spacing			Rafter Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Douglas Fir-Larch (includes Douglas Fir and Western Larch)	Select structural	38 X 89	2.97	2.69	2.35	3.40	3.09	2.69
		38 X 140	4.66	4.24	3.70	5.34	4.85	4.24
		38 X 184	6.15	5.59	4.88	7.04	6.40	5.59
		38 X 235	7.85	7.13	6.23	8.98	8.16	7.13
		38 X 286	9.54	8.67	7.57	10.93	9.93	8.67
	No. 1	38 X 89	2.97	2.69	2.35	3.40	3.09	2.69
		38 X 140	4.66	4.24	3.57	5.34	4.85	4.20
		38 X 184	6.15	5.59	4.71	7.04	6.40	5.54
		38 X 235	7.85	7.13	6.01	8.98	8.16	7.07
		38 X 286	9.54	8.67	7.31	10.93	9.93	8.60
	No. 2	38 X 89	2.87	2.60	2.23	3.28	2.98	2.60
		38 X 140	4.51	3.93	3.21	5.16	4.63	3.78
		38 X 184	5.94	5.19	4.23	6.81	6.10	4.98
		38 X 235	7.59	6.62	5.40	8.68	7.79	6.36
		38 X 286	9.23	8.05	6.57	10.56	9.47	7.73
	No. 3	38 X 89	2.33	2.02	1.65	2.74	2.38	1.94
		38 X 140	3.44	2.98	2.43	4.04	3.50	2.86
		38 X 184	4.53	3.92	3.20	5.33	4.62	3.77
		38 X 235	5.78	5.01	4.09	6.81	5.89	4.81
		38 X 286	7.03	6.09	4.97	8.28	7.17	5.85
	Construction	38 X 89	2.67	2.31	1.89	3.14	2.72	2.22
	Standard	38 X 89	2.01	1.74	1.42	2.36	2.04	1.67
	Utility	38 X 89	1.37	1.18	0.96	1.61	1.39	1.14
	Select structural	38 X 89	2.86	2.60	2.27	3.27	2.97	2.60
		38 X 140	4.49	4.06	3.32	5.15	4.67	3.90
		38 X 184	5.93	5.36	4.37	6.78	6.16	5.15
		38 X 235	7.56	6.84	5.58	8.66	7.87	6.57
		38 X 286	9.20	8.32	6.79	10.53	9.57	7.99
	No. 1	38 X 89	2.86	2.58	2.11	3.27	2.97	2.48
		38 X 140	4.36	3.77	3.08	5.13	4.44	3.63
		38 X 184	5.75	4.98	4.06	6.76	5.86	4.78
		38 X 235	7.33	6.35	5.18	8.63	7.47	6.10
		38 X 286	8.92	7.73	6.31	10.50	9.09	7.42

Continued on next page

Table A-9 (Cont'd)
Forming Part of Article 9.23.4.1.

RAFTERS - NOT SUPPORTING CEILING (GROUND SNOW LOADS 2.5 AND 1.7 kPa)								
Commercial Designation	Grade	Nominal Size, mm	2.5 kPa			1.7 kPa		
			Rafter Spacing			Rafter Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Hem-Fir (includes Western Hemlock and Amabilis Fir)	No. 2	38 X 89	2.70	2.34	1.91	3.16	2.76	2.25
		38 X 140	3.91	3.39	2.76	4.60	3.98	3.25
		38 X 184	5.16	4.46	3.64	6.07	5.25	4.29
		38 X 235	6.58	5.70	4.65	7.74	6.71	5.47
		38 X 286	8.00	6.93	5.66	9.42	8.16	6.66
	No. 3	38 X 89	2.01	1.74	1.42	2.36	2.04	1.67
		38 X 140	2.97	2.57	2.10	3.49	3.02	2.47
		38 X 184	3.91	3.39	2.76	4.60	3.99	3.25
		38 X 235	4.99	4.32	3.53	5.87	5.09	4.15
		38 X 286	6.07	5.26	4.29	7.15	6.19	5.05
	Construction	38 X 89	2.31	2.00	1.63	2.72	2.35	1.92
	Standard	38 X 89	1.73	1.50	1.22	2.04	1.76	1.44
	Utility	38 X 89	1.18	1.02	0.83	1.39	1.21	0.98
Eastern Hemlock- Tamarack (includes Eastern Hemlock and Tamarack	Select structural	38 X 89	2.72	2.47	2.16	3.12	2.83	2.47
		38 X 140	4.28	3.89	3.40	4.90	4.45	3.89
		38 X 184	5.65	5.13	4.48	6.46	5.87	5.13
		38 X 235	7.21	6.55	5.72	8.25	7.49	6.55
		38 X 286	8.76	7.96	6.95	10.03	9.12	7.96
	No. 1	38 X 89	2.72	2.47	2.16	3.12	2.83	2.47
		38 X 140	4.28	3.89	3.40	4.90	4.45	3.89
		38 X 184	5.65	5.13	4.48	6.46	5.87	5.13
		38 X 235	7.21	6.55	5.72	8.25	7.49	6.55
		38 X 286	8.76	7.96	6.95	10.03	9.12	7.96
	No. 2	38 X 89	2.62	2.38	2.08	3.01	2.73	2.38
		38 X 140	4.13	3.75	3.08	4.73	4.29	3.63
		38 X 184	5.44	4.94	4.06	6.23	5.66	4.78
		38 X 235	6.95	6.31	5.18	7.95	7.22	6.10
		38 X 286	8.45	7.68	6.31	9.67	8.79	7.42
	No. 3	38 X 89	2.25	1.95	1.59	2.65	2.29	1.87
		38 X 140	3.30	2.86	2.33	3.88	3.36	2.74
		38 X 184	4.35	3.77	3.07	5.12	4.43	3.62
		38 X 235	5.55	4.81	3.92	6.53	5.66	4.62
		38 X 286	6.75	5.85	4.77	7.95	6.88	5.62

Continued on next page

Table A-9 (Cont'd)
Forming Part of Article 9.23.4.1.

RAFTERS - NOT SUPPORTING CEILING (GROUND SNOW LOADS 2.5 AND 1.7 kPa)								
Commercial Designation	Grade	Nominal Size, mm	2.5 kPa			1.7 kPa		
			Rafter Spacing			Rafter Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
	Construction	38 X 89	2.53	2.23	1.82	2.90	2.63	2.15
	Standard	38 X 89	1.91	1.65	1.35	2.25	1.95	1.59
	Utility	38 X 89	1.33	1.15	0.94	1.57	1.36	1.11
Coast Species (includes Douglas Fir, Western Larch, Western Hemlock, Amabilis Fir, and Coast Sitka Spruce)	Select structural	38 X 89	2.86	2.60	2.26	3.27	2.97	2.60
		38 X 140	4.49	4.02	3.28	5.15	4.67	3.86
		38 X 184	5.93	5.30	4.33	6.78	6.16	5.09
		38 X 235	7.56	6.76	5.52	8.66	7.87	6.50
		38 X 286	9.20	8.23	6.72	10.53	9.57	7.90
	No. 1	38 X 89	2.86	2.56	2.09	3.27	2.97	2.46
		38 X 140	4.31	3.73	3.04	5.07	4.39	3.58
		38 X 184	5.68	4.92	4.01	6.68	5.79	4.72
		38 X 235	7.24	6.27	5.12	8.53	7.38	6.03
		38 X 286	8.81	7.63	6.23	10.37	8.98	7.33
	No. 2	38 X 89	2.67	2.31	1.89	3.14	2.72	2.22
		38 X 140	3.85	3.33	2.72	4.53	3.92	3.20
		38 X 184	5.08	4.40	3.59	5.98	5.17	4.22
		38 X 235	6.48	5.61	4.58	7.62	6.60	5.39
		38 X 286	7.88	6.82	5.57	9.27	8.03	6.56
	No. 3	38 X 89	1.98	1.72	1.40	2.33	2.02	1.65
		38 X 140	2.93	2.53	2.07	3.44	2.98	2.43
		38 X 184	3.86	3.34	2.73	4.54	3.93	3.21
		38 X 235	4.93	4.26	3.48	5.80	5.02	4.10
		38 X 286	5.99	5.19	4.23	7.05	6.11	4.98
	Construction	38 X 89	2.27	1.96	1.60	2.67	2.31	1.89
	Standard	38 X 89	1.70	1.47	1.20	2.00	1.74	1.42
	Utility	38 X 89	1.18	1.02	0.83	1.39	1.21	0.98
	Select structural	38 X 89	2.69	2.45	2.14	3.09	2.80	2.45
		38 X 140	4.24	3.85	3.21	4.85	4.41	3.78
		38 X 184	5.59	5.08	4.23	6.40	5.81	4.98
		38 X 235	7.13	6.48	5.40	8.16	7.41	6.36
		38 X 286	8.67	7.88	6.57	9.93	9.02	7.73

Continued on next page

Table A-9 (Cont'd)
Forming Part of Article 9.23.4.1.

RAFTERS - NOT SUPPORTING CEILING (GROUND SNOW LOADS 2.5 AND 1.7 kPa)								
Commercial Designation	Grade	Nominal Size, mm	2.5 kPa			1.7 kPa		
			Rafter Spacing			Rafter Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
Spruce-Pine-Fir (includes Spruce (all species except Coast Sitka Spruce) Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir)	No. 1	38 X 89	2.69	2.45	2.04	3.09	2.80	2.40
		38 X 140	4.22	3.66	2.99	4.85	4.30	3.51
		38 X 184	5.57	4.82	3.94	6.40	5.68	4.63
		38 X 235	7.11	6.15	5.02	8.16	7.24	5.91
	No. 2	38 X 286	8.64	7.49	6.11	9.93	8.81	7.19
		38 X 89	2.60	2.26	1.85	2.98	2.67	2.18
		38 X 140	3.79	3.28	2.68	4.46	3.86	3.15
		38 X 184	5.00	4.33	3.53	5.88	5.09	4.16
		38 X 235	6.38	5.52	4.51	7.50	6.50	5.31
		38 X 286	7.76	6.72	5.48	9.13	7.90	6.45
	No. 3	38 X 89	1.96	1.70	1.38	2.31	2.00	1.63
		38 X 140	2.89	2.50	2.04	3.40	2.94	2.40
		38 X 184	3.81	3.30	2.69	4.48	3.88	3.17
		38 X 235	4.86	4.21	3.43	5.72	4.95	4.04
		38 X 286	5.91	5.12	4.18	6.95	6.02	4.92
	Construction	38 X 89	2.23	1.93	1.57	2.62	2.27	1.85
	Standard	38 X 89	1.67	1.45	1.18	1.97	1.71	1.39
	Utility	38 X 89	1.14	0.99	0.81	1.35	1.16	0.95
Western Cedars (includes Western Red Cedar and Pacific Coast Yellow Cedar	Select structural	38 X 89	2.59	2.36	2.06	2.97	2.70	2.36
		38 X 140	4.08	3.71	3.02	4.67	4.24	3.71
		38 X 184	5.38	4.89	4.27	6.16	5.59	4.89
		38 X 235	6.86	6.24	5.45	7.86	7.14	6.24
		38 X 286	8.35	7.58	6.63	9.56	8.68	7.58
	No. 1	38 X 89	2.59	2.36	2.06	2.97	2.70	2.36
		38 X 140	4.08	3.70	3.02	4.67	4.24	3.56
		38 X 184	5.38	4.88	3.99	6.16	5.59	4.69
		38 X 235	6.86	6.23	5.09	7.86	7.14	5.99
		38 X 286	8.35	7.58	6.19	9.56	8.68	7.29
	No. 2	38 X 89	2.51	2.28	1.87	2.87	2.61	2.20
		38 X 140	3.82	3.31	2.70	4.50	3.89	3.18
		38 X 184	5.04	4.36	3.56	5.93	5.13	4.19
		38 X 235	6.43	5.57	4.54	7.56	6.55	5.35
		38 X 286	7.82	6.77	5.53	9.20	7.97	6.51

Continued on next page

Table A-9 (Cont'd)
Forming Part of Article 9.23.4.1.

RAFTERS - NOT SUPPORTING CEILING (GROUND SNOW LOADS 2.5 AND 1.7 kPa)								
Commercial Designation	Grade	Nominal Size, mm	2.5 kPa			1.7 kPa		
			Rafter Spacing			Rafter Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
			m	m	m	m	m	m
	No. 3	38 X 89	1.96	1.70	1.38	2.31	2.00	1.63
		38 X 140	2.89	2.50	2.04	3.40	2.94	2.40
		38 X 184	3.81	3.30	2.69	4.48	3.88	3.17
		38 X 235	4.86	4.21	3.43	5.72	4.95	4.04
		38 X 286	5.91	5.12	4.18	6.95	6.02	4.92
	Construction	38 X 89	2.25	1.95	1.59	2.65	2.29	1.87
	Standard	38 X 89	1.67	1.45	1.18	1.97	1.71	1.39
	Utility	38 X 89	1.14	0.99	0.81	1.35	1.16	0.95
Northern Species (includes any Canadian soft- wood covered by the NLGA Standard Grading Rules)	Select structural	38 X 89	2.59	2.36	2.06	2.97	2.70	2.36
		38 X 140	4.08	3.71	3.12	4.67	4.24	3.67
		38 X 184	5.38	4.89	4.11	6.16	5.59	4.84
		38 X 235	6.86	6.24	5.25	7.86	7.14	6.18
		38 X 286	8.35	7.58	6.38	9.56	8.68	7.51
	No. 1	38 X 89	2.59	2.36	1.98	2.97	2.70	2.33
		38 X 140	4.08	3.54	2.89	4.67	4.16	3.40
		38 X 184	5.38	4.66	3.81	6.16	5.49	4.48
		38 X 235	6.86	5.95	4.86	7.86	7.00	5.72
		38 X 286	8.35	7.24	5.91	9.56	8.52	6.95
	No. 2	38 X 89	2.51	2.20	1.80	2.87	2.59	2.11
		38 X 140	3.67	3.17	2.59	4.31	3.74	3.05
		38 X 184	4.83	4.18	3.42	5.69	4.93	4.02
		38 X 235	6.17	5.34	4.36	7.26	6.29	5.13
		38 X 286	7.50	6.50	5.30	8.83	7.65	6.24
	No. 3	38 X 89	1.89	1.63	1.33	2.22	1.92	1.57
		38 X 140	2.76	2.39	1.95	3.25	2.82	2.30
		38 X 184	3.64	3.16	2.58	4.29	3.71	3.03
		38 X 235	4.65	4.03	3.29	5.47	4.74	3.87
		38 X 286	5.66	4.90	4.00	6.66	5.77	4.71
	Construction	38 X 89	2.16	1.87	1.53	2.55	2.20	1.80
	Standard	38 X 89	1.62	1.40	1.14	1.90	1.65	1.35
	Utility	38 X 89	1.10	0.95	0.78	1.30	1.12	0.92

Continued on next page

Table A-9 (Cont'd)
Forming Part of Article 9.23.4.1.

RAFTERS - NOT SUPPORTING CEILING (GROUND SNOW LOADS 2.5 AND 1.7 kPa)								
Commercial Designation	Grade	Nominal Size,	2.5 kPa			1.7 kPa		
			Rafter Spacing			Rafter Spacing		
			300mm	400mm	600mm	300mm	400mm	600mm
		mm	m	m	m	m	m	m
Northern Aspen (includes Aspen Poplar, Large Tooth Aspen and Balsam Poplar)	Select structural	38 X 89	2.64	2.39	2.09	3.02	2.74	2.39
		38 X 140	4.14	3.76	3.21	4.74	4.31	3.76
		38 X 184	5.46	4.96	4.23	6.26	5.68	4.96
		38 X 235	6.97	6.33	5.40	7.98	7.25	6.33
		38 X 286	8.48	7.70	6.57	9.71	8.82	7.70
	No. 1	38 X 89	2.64	2.39	2.04	3.02	2.74	2.39
		38 X 140	4.14	3.66	2.99	4.74	4.30	3.51
		38 X 184	5.46	4.82	3.94	6.26	5.68	4.63
		38 X 235	6.97	6.15	5.02	7.98	7.24	5.91
		38 X 286	8.48	7.49	6.11	9.71	8.81	7.19
	No. 2	38 X 89	2.54	2.28	1.86	2.91	2.64	2.19
		38 X 140	3.79	3.28	2.68	4.46	3.86	3.15
		38 X 184	5.00	4.33	3.53	5.88	5.09	4.16
		38 X 235	6.38	5.52	4.51	7.50	6.50	5.31
		38 X 286	7.76	6.72	5.48	9.13	7.90	6.45
	No. 3	38 X 89	1.96	1.70	1.38	2.31	2.00	1.63
		38 X 140	2.89	2.50	2.04	3.40	2.94	2.40
		38 X 184	3.81	3.30	2.69	4.48	3.88	3.17
		38 X 235	4.86	4.21	3.43	5.72	4.95	4.04
		38 X 286	5.91	5.12	4.18	6.95	6.02	4.92
	Construction	38 X 89	2.23	1.93	1.57	2.62	2.27	1.85
	Standard	38 X 89	1.67	1.45	1.18	1.97	1.71	1.39
	Utility	38 X 89	1.14	0.99	0.81	1.35	1.16	0.95

Table A-10
Forming Part of Article 9.23.4.1.

MAXIMUM SPANS FOR BUILT-UP WOOD BEAMS SUPPORTING NOT MORE THAN ONE FLOOR IN HOUSES (1)								
Commercial Designation	Grade	Supported Joist Length, (1) m	Size of Built-Up Beam, mm					
			3-38 x 184	4-38 x 184	3-38 x 235	4-38 x 235	3-38 x 286	4-38 x 286
			m	m	m	m	m	m
Douglas Fir-Larch (includes Douglas Fir and Western Larch)	No. 1	2.4	3.70	4.27	4.72	5.45	5.74	6.63
		3.0	3.31	3.82	4.22	4.87	5.13	5.93
		3.6	3.02	3.49	3.85	4.45	4.69	5.41
		4.2	2.76	3.23	3.52	4.12	4.29	5.01
		4.8	2.46	3.02	3.14	3.85	3.82	4.69
	No. 2	2.4	3.33	3.84	4.24	4.90	5.16	5.96
		3.0	2.97	3.44	3.79	4.38	4.62	5.33
		3.6	2.71	3.14	3.46	4.00	4.22	4.87
		4.2	2.51	2.90	3.20	3.70	3.90	4.51
		4.8	2.35	2.71	3.00	3.46	3.65	4.22
Hem-Fir (includes Western Hemlock and Amabilis Fir)	No. 1	2.4	3.19	3.69	4.10	4.71	4.96	5.72
		3.0	2.85	3.30	3.64	4.21	4.43	5.12
		3.6	2.61	3.01	3.33	3.84	4.05	4.67
		4.2	2.30	2.79	2.93	3.56	3.57	4.33
		4.8	2.06	2.61	2.62	3.33	3.19	4.05
	No. 2	2.4	2.86	3.31	3.65	4.22	4.45	5.13
		3.0	2.56	2.96	3.27	3.77	3.98	4.59
		3.6	2.34	2.70	2.98	3.45	3.63	4.19
		4.2	2.16	2.50	2.76	3.19	3.36	3.88
		4.8	2.02	2.34	2.58	2.98	3.14	3.63
Eastern Hemlock Tamarack (including Eastern Hemlock and Tamarack)	No. 1	2.4	3.56	4.11	4.54	5.25	5.53	6.38
		3.0	3.18	3.68	4.06	4.69	4.94	5.71
		3.6	2.91	3.36	3.71	4.28	4.51	5.21
		4.2	2.69	3.11	3.43	3.97	4.18	4.82
		4.8	2.46	2.91	3.14	3.71	3.82	4.51
	No. 2	2.4	3.19	3.69	4.07	4.71	4.96	5.72
		3.0	2.85	3.30	3.64	4.21	4.43	5.12
		3.6	2.61	3.01	3.33	3.84	4.05	4.67
		4.2	2.41	2.79	3.08	3.56	3.75	4.33
		4.8	2.26	2.61	2.88	3.33	3.50	4.05
Coast Species (includes Douglas Fir, Western Larch, Western Hemlock, Amabilis Fir, and Coast Sitka Spruce)	No. 1	2.4	3.15	3.64	4.02	4.65	4.90	5.65
		3.0	2.64	3.26	3.37	4.16	4.10	5.06
		3.6	2.26	2.89	2.88	3.69	3.51	4.49
		4.2	1.99	2.53	2.54	3.23	3.09	3.93
		4.8	1.79	2.26	2.28	2.88	2.77	3.51

Continued on next page

Table A-10 (Cont'd)
Forming Part of Article 9.23.4.1.

MAXIMUM SPANS FOR BUILT-UP WOOD BEAMS SUPPORTING NOT MORE THAN ONE FLOOR IN HOUSES ⁽¹⁾								
Commercial Designation	Grade	Supported Joist Length, ⁽¹⁾ m	Size of Built-Up Beam, mm					
			3-38 x 184	4-38 x 184	3-38 x 235	4-38 x 235	3-38 x 286	4-38 x 286
			m	m	m	m	m	m
Spruce-Pine-Fir (includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir)	No. 2	2.4	2.82	3.26	3.60	4.16	4.38	5.06
		3.0	2.52	2.91	3.22	3.72	3.92	4.52
		3.6	2.26	2.66	2.88	3.39	3.51	4.13
		4.2	1.99	2.46	2.54	3.14	3.09	3.82
		4.8	1.79	2.26	2.28	2.88	2.77	3.51
	No. 1	2.4	3.09	3.57	3.95	4.56	4.80	5.55
		3.0	2.77	3.19	3.53	4.08	4.30	4.96
		3.6	2.44	2.92	3.11	3.72	3.79	4.53
		4.2	2.14	2.70	2.74	3.45	3.33	4.19
		4.8	1.92	2.44	2.45	3.11	2.98	3.79
	No. 2	2.4	2.78	3.21	3.54	4.09	4.31	4.98
		3.0	2.48	2.87	3.17	3.66	3.85	4.45
		3.6	2.26	2.62	2.89	3.34	3.52	4.06
		4.2	2.10	2.42	2.68	3.09	3.26	3.76
		4.8	1.92	2.26	2.45	2.89	2.98	3.52
	No. 1	2.4	3.13	3.62	4.00	4.62	4.86	5.62
		3.0	2.80	3.24	3.58	4.13	4.35	5.02
		3.6	2.56	2.95	3.26	3.77	3.97	4.59
		4.2	2.26	2.73	2.88	3.49	3.51	4.25
		4.8	2.02	2.56	2.58	3.26	3.14	3.97
	No. 2	2.4	2.80	3.23	3.57	4.12	4.34	5.02
		3.0	2.50	2.89	3.19	3.69	3.88	4.49
		3.6	2.28	2.64	2.91	3.37	3.55	4.10
		4.2	2.11	2.44	2.70	3.12	3.28	3.79
		4.8	1.98	2.27	2.52	2.91	3.07	3.55
Western Cedars (includes Western Red Cedar and Pacific Coast Yellow Cedar)	No. 1	2.4	2.99	3.45	3.82	4.41	4.64	5.36
		3.0	2.64	3.09	3.37	3.94	4.10	4.80
		3.6	2.26	2.82	2.88	3.60	3.51	4.38
		4.2	1.99	2.53	2.54	3.23	3.09	3.93
		4.8	1.79	2.26	2.28	2.88	2.77	3.51
	No. 2	2.4	2.68	3.10	3.43	3.96	4.17	4.81
		3.0	2.40	2.77	3.07	3.54	3.73	4.30
		3.6	2.19	2.53	2.80	3.23	3.40	3.93
		4.2	1.99	2.34	2.54	2.99	3.09	3.64
		4.8	1.79	2.19	2.28	2.80	2.77	3.40
Northern Species (includes any Canadian softwood covered by the NLGA Standard Grading Rules)	No. 1	2.4	2.99	3.45	3.82	4.41	4.64	5.36
		3.0	2.64	3.09	3.37	3.94	4.10	4.80
		3.6	2.26	2.82	2.88	3.60	3.51	4.38
		4.2	1.99	2.53	2.54	3.23	3.09	3.93
		4.8	1.79	2.26	2.28	2.88	2.77	3.51
	No. 2	2.4	2.68	3.10	3.43	3.96	4.17	4.81
		3.0	2.40	2.77	3.07	3.54	3.73	4.30
		3.6	2.19	2.53	2.80	3.23	3.40	3.93
		4.2	1.99	2.34	2.54	2.99	3.09	3.64
		4.8	1.79	2.19	2.28	2.80	2.77	3.40

Continued on next page

Table A-10 (Cont'd)
Forming Part of Article 9.23.4.1.

MAXIMUM SPANS FOR BUILT-UP WOOD BEAMS SUPPORTING NOT MORE THAN ONE FLOOR IN HOUSES								
Commercial Designation	Grade	Supported Joist Length, ⁽¹⁾ m	Size of Built-Up Beam, mm					
			3-38 x 184	4-38 x 184	3-38 x 235	4-38 x 235	3-38 x 286	4-38 x 286
			m	m	m	m	m	m
Northern Aspen (includes Aspen)	No. 1	2.4	3.09	3.57	3.95	4.56	4.80	5.55
		3.0	2.69	3.19	3.44	4.08	4.18	4.96
		3.6	2.30	2.92	2.94	3.72	3.58	4.53
		4.2	2.03	2.58	2.59	3.29	3.15	4.01
		4.8	1.82	2.30	2.32	2.94	2.83	3.58
Poplar, Large Tooth Aspen and Balsam Poplar)	No. 2	2.4	2.78	3.21	3.54	4.09	4.31	4.98
		3.0	2.48	2.87	3.17	3.66	3.85	4.45
		3.6	2.26	2.62	2.89	3.34	3.52	4.06
		4.2	2.03	2.42	2.59	3.09	3.15	3.76
		4.8	1.82	2.26	2.32	2.89	2.83	3.52

Table A-11
Forming Part of Article 9.23.4.1.

MAXIMUM SPANS FOR BUILT-UP WOOD BEAMS SUPPORTING NOT MORE THAN TWO FLOORS IN HOUSES (1)								
Commercial Designation	Grade	Supported Joist Length, (1) m	Size of Built-Up Beam, mm					
			3-38 x 184	4-38 x 184	3-38 x 235	4-38 x 235	3-38 x 286	4-38 x 286
			m	m	m	m	m	m
Douglas Fir-Larch (includes Douglas Fir and Western Larch)	No. 1	2.4	2.78	3.24	3.55	4.13	4.32	5.03
		3.0	2.30	2.90	2.93	3.70	3.57	4.50
		3.6	1.97	2.51	2.52	3.21	3.07	3.90
		4.2	1.74	2.20	2.23	2.81	2.71	3.42
		4.8	1.57	1.97	2.01	2.52	2.44	3.07
	No. 2	2.4	2.52	2.91	3.21	3.72	3.92	4.52
		3.0	2.26	2.61	2.87	3.33	3.50	4.05
		3.6	1.97	2.38	2.52	3.04	3.07	3.69
		4.2	1.74	2.20	2.23	2.81	2.71	3.42
		4.8	1.57	1.97	2.01	2.52	2.44	3.07
Hem-Fir (includes Western Hemlock and Amabilis Fir)	No. 1	2.4	2.31	2.80	2.95	3.57	3.59	4.34
		3.0	1.92	2.44	2.45	3.12	2.99	3.79
		3.6	1.66	2.10	2.12	2.68	2.58	3.25
		4.2	1.48	1.85	1.89	2.36	2.29	2.87
		4.8	1.34	1.66	1.71	2.12	2.08	2.58
	No. 2	2.4	2.17	2.51	2.77	3.20	3.37	2.89
		3.0	1.92	2.24	2.45	2.86	2.99	3.48
		3.6	1.66	2.05	2.12	2.62	2.58	3.18
		4.2	1.48	1.85	1.89	2.36	2.29	2.87
		4.8	1.34	1.66	1.71	2.12	2.08	2.58
Eastern Hemlock- Tamarack (includes Eastern Hemlock and Tamarack)	No. 1	2.4	2.70	3.12	3.45	3.98	4.19	4.84
		3.0	2.30	2.79	2.93	3.56	3.57	4.33
		3.6	1.97	2.51	2.52	3.21	3.07	3.90
		4.2	1.74	2.20	2.23	2.81	2.71	3.42
		4.8	1.57	1.97	2.01	2.52	2.44	3.07
	No. 2	2.4	2.42	2.80	3.09	3.56	3.76	4.34
		3.0	2.16	2.51	2.76	3.19	3.36	3.88
		3.6	1.97	2.28	2.52	2.91	3.07	3.54
		4.2	1.74	2.11	2.23	2.70	2.71	3.28
		4.8	1.57	1.97	2.01	2.52	2.44	3.07
Coast Species (includes Douglas Fir, Western Larch,	No. 1	2.4	2.00	2.55	2.55	3.25	3.11	3.95
		3.0	1.67	2.11	2.14	2.69	2.60	3.28
		3.6	1.45	1.82	1.86	2.32	2.26	2.82
		4.2	1.30	1.61	1.66	2.06	2.02	2.50
		4.8	1.18	1.45	1.51	1.86	1.84	2.26

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Table A-11 (Cont'd)
Forming Part of Article 9.23.4.1.

MAXIMUM SPANS FOR BUILT-UP WOOD BEAMS SUPPORTING NOT MORE THAN TWO FLOORS IN HOUSES (1)								
Commercial Designation	Grade	Supported Joist Length, (1) m	Size of Built-Up Beam, mm					
			3-38 x 184	4-38 x 184	3-38 x 235	4-38 x 235	3-38 x 286	4-38 x 286
			m	m	m	m	m	m
Western Hemlock, Amabilis Fir and Coast Sitka Spruce)	No. 2	2.4	2.00	2.47	2.55	3.15	3.11	3.84
		3.0	1.67	2.11	2.14	2.69	2.60	3.28
		3.6	1.45	1.82	1.86	2.32	2.26	2.82
		4.2	1.30	1.61	1.66	2.06	2.02	2.50
		4.8	1.18	1.45	1.51	1.86	1.84	2.26
Spruce-Pine-Fir (includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir)	No. 1	2.4	2.16	2.71	2.75	3.46	3.35	4.21
		3.0	1.80	2.28	2.30	2.91	2.79	3.53
		3.6	1.56	1.96	1.99	2.50	2.42	3.04
		4.2	1.39	1.73	1.77	2.21	2.16	2.69
		4.8	1.26	1.56	1.61	1.99	1.96	2.42
	No. 2	2.4	2.10	2.43	2.69	3.10	3.27	3.77
		3.0	1.80	2.17	2.30	2.77	2.79	3.38
		3.6	1.56	1.96	1.99	2.50	2.42	3.04
		4.2	1.39	1.73	1.77	2.21	2.16	2.69
		4.8	1.26	1.56	1.61	1.99	1.96	2.42
Western Cedars (includes Western Red Cedar and Pacific Coast Yellow Cedar)	No. 1	2.4	2.27	2.74	2.90	3.50	3.53	4.26
		3.0	1.89	2.40	2.41	3.06	2.94	3.73
		3.6	1.64	2.06	2.09	2.63	2.54	3.20
		4.2	1.45	1.82	1.86	2.32	2.26	2.82
		4.8	1.32	1.64	1.68	2.09	2.05	2.54
	No. 2	2.4	2.12	2.45	2.71	3.13	3.29	3.81
		3.0	1.89	2.19	2.41	2.80	2.94	3.40
		3.6	1.64	2.00	2.09	2.55	2.54	3.11
		4.2	1.45	1.82	1.86	2.32	2.26	2.82
		4.8	1.32	1.64	1.68	2.09	2.05	2.42
Northern Species (includes any Canadian softwood covered by the NLGA Standard Grading Rules)	No. 1	2.4	2.00	2.55	2.55	3.25	3.11	3.95
		3.0	1.67	2.11	2.14	2.69	2.60	3.28
		3.6	1.45	1.82	1.86	2.32	2.26	2.82
		4.2	1.30	1.61	1.66	2.06	2.02	2.50
		4.8	1.18	1.45	1.51	1.86	1.84	2.26
	No. 2	2.4	2.00	2.35	2.55	3.00	3.11	3.65
		3.0	1.67	2.10	2.14	2.68	2.60	3.26
		3.6	1.45	1.82	1.86	2.32	2.26	2.82
		4.2	1.30	1.61	1.66	2.06	2.02	2.50
		4.8	1.18	1.45	1.51	1.86	1.84	2.26

Continued on next page

Table A-11 (Cont'd)
Forming Part of Article 9.23.4.1.

MAXIMUM SPANS FOR BUILT-UP WOOD BEAMS SUPPORTING NOT MORE THAN TWO FLOORS IN HOUSES								
Commercial Designation	Grade	Supported Joist Length, ⁽¹⁾ m	Size of Built-Up Beam, mm					
			3-38 x 184	4-38 x 184	3-38 x 235	4-38 x 235	3-38 x 286	4-38 x 286
			m	m	m	m	m	m
Northern Aspen (includes Aspen Poplar, Large Tooth Aspen and Balsam Poplar)	No. 1	2.4	2.04	2.60	2.60	3.32	3.17	4.03
		3.0	1.70	2.15	2.18	2.75	2.65	3.34
		3.6	1.48	1.85	1.89	2.37	2.30	2.88
		4.2	1.32	1.64	1.69	2.09	2.05	2.55
		4.8	1.20	1.48	1.53	1.89	1.87	2.30
	No. 2	2.4	2.04	2.43	2.60	3.10	3.17	3.77
		3.0	1.70	2.15	2.18	2.75	2.65	3.34
		3.6	1.48	1.85	1.89	2.37	2.30	2.88
		4.2	1.32	1.64	1.69	2.09	2.05	2.55
		4.8	1.20	1.48	1.53	1.89	1.87	2.30

Table A-12
Forming Part of Article 9.23.4.1.

MAXIMUM CLEAR SPANS BETWEEN END SUPPORTS FOR FINK TRUSSES, ■										
Top Member Size, mm	Bottom Member Size, mm	Roof Slope	No. 1 Grade Lumber				No. 2 Grade Lumber			
			Ground Snow Load, kPa				Ground Snow Load, kPa			
			1.7	2.5	3.3	4.2	1.7	2.5	3.3	4.2
38 X 89	38 X 89	1 in 4.8	6.75	4.87	—	—	5.84	4.01	—	—
		1 in 4	9.57	8.12	6.01	4.54	8.02	7.13	5.18	3.78
		1 in 3	9.60	8.83	7.62	6.75	8.91	7.69	6.60	5.84
		1 in 2.4	9.80	9.04	7.79	6.93	9.11	7.87	6.78	6.01
	38 x 114	1 in 4.8	7.74	5.74	3.78	—	6.75	4.85	—	—
		1 in 4	9.27	8.53	7.06	5.48	8.58	7.36	6.14	4.67
		1 in 3	9.60	8.83	7.62	6.75	8.91	7.69	6.60	5.84
		1 in 2.4	9.80	9.04	7.79	6.93	9.11	7.87	6.78	6.01
	38 X 140	1 in 4.8	8.50	6.35	4.39	—	7.44	5.46	3.47	—
		1 in 4	9.27	8.53	7.28	5.89	8.58	7.36	6.29	5.08
		1 in 3	9.60	8.83	7.62	6.75	8.91	7.69	6.60	5.84
		1 in 2.4	9.80	9.04	7.79	6.93	9.11	7.87	6.78	6.01
38 X 114	38 X 89	1 in 4.8	7.97	5.91	3.96	—	6.95	5.02	—	—
		1 in 4	9.57	8.66	7.18	5.56	8.02	7.16	6.24	4.77
		1 in 3	10.54	9.75	8.81	7.97	8.96	8.20	7.31	6.57
		1 in 2.4	11.20	9.90	9.65	8.89	9.57	8.91	8.10	7.41
	38 X 114	1 in 4.8	9.27	6.98	4.95	3.30	8.12	6.04	4.08	—
		1 in 4	11.91	10.23	8.48	6.68	10.31	9.24	7.44	5.79
		1 in 3	12.19	10.64	9.14	8.66	10.74	9.24	8.48	7.49
		1 in 2.4	12.19	10.89	9.39	8.91	10.99	9.49	8.71	7.74
	38 X 140	1 in 4.8	10.23	7.79	5.63	4.08	9.01	6.78	4.77	—
		1 in 4	11.91	10.23	9.11	7.23	10.31	9.47	8.05	6.29
		1 in 3	12.19	10.64	9.14	8.66	10.74	9.47	8.48	7.49
		1 in 2.4	12.19	10.89	9.39	8.91	10.99	9.49	8.71	7.74
38 X 140	38 X 89	1 in 4.8	8.89	6.73	4.72	—	7.39	5.81	3.86	—
		1 in 4	9.57	8.66	7.62	6.35	8.02	7.16	6.24	5.48
		1 in 3	10.54	9.75	8.81	7.79	8.96	8.20	7.31	6.57
		1 in 2.4	11.20	10.49	9.65	8.89	9.57	8.91	8.10	7.41
	38 X 114	1 in 4.8	10.46	7.97	5.79	4.24	9.22	6.95	4.92	3.27
		1 in 4	12.19	11.12	9.62	7.64	10.33	9.24	8.02	6.68
		1 in 3	12.19	12.19	11.17	9.90	11.50	10.54	9.42	8.45
		1 in 2.4	12.19	12.19	11.48	10.18	12.19	11.45	9.98	9.44
	38 X 140	1 in 4.8	11.68	8.96	6.60	5.00	10.33	7.84	5.68	4.14
		1 in 4	12.19	12.19	10.43	8.33	12.19	10.82	9.22	7.31
		1 in 3	12.19	12.19	11.17	9.90	12.19	11.30	9.67	9.16
		1 in 2.4	12.19	12.19	11.48	10.18	12.19	11.60	9.98	9.44
Column 1	2	3	4	5	6	7	8	9	10	11

Table A-13
Forming Part of Article 9.23.4.1.

MAXIMUM CLEAR SPANS BETWEEN END SUPPORTS FOR HOWE TRUSSES, m										
Top Member Size, mm	Bottom Member Size, mm	Roof Slope	No. 1 Grade Lumber				No. 2 Grade Lumber			
			Ground Snow Load, kPa				Ground Snow Load, kPa			
			1.7	2.5	3.3	4.2	1.7	2.5	3.3	4.2
38 X 89	38 X 89	1 in 4.8	9.44	7.31	5.48	4.24	8.30	6.45	4.77	3.63
		1 in 4	9.44	8.50	7.28	6.42	8.55	7.36	6.27	5.53
		1 in 3	9.57	8.83	7.59	6.73	8.89	7.67	6.57	5.84
		1 in 2.4	9.77	9.04	7.79	6.93	9.09	7.87	6.78	6.01
	38 x 114	1 in 4.8	9.62	8.15	6.17	4.82	8.30	7.11	5.41	4.19
		1 in 4	9.62	8.50	7.28	6.42	8.55	7.36	6.27	5.53
		1 in 3	9.62	8.83	7.59	6.73	8.89	7.67	6.57	5.84
		1 in 2.4	9.77	9.04	7.79	6.93	9.09	8.87	6.78	6.01
	38 X 140	1 in 4.8	9.62	8.25	7.03	5.63	8.30	7.11	6.04	4.92
		1 in 4	9.62	8.50	7.28	6.42	8.55	7.36	6.27	5.53
		1 in 3	9.62	8.83	7.59	6.73	8.89	7.67	6.57	5.84
		1 in 2.4	9.77	9.04	7.79	6.93	9.09	7.87	6.78	6.01
38 X 114	38 X 89	1 in 4.8	10.18	8.28	6.27	4.92	8.35	7.16	5.48	4.26
		1 in 4	11.20	9.85	8.45	7.34	9.27	8.07	6.83	5.89
		1 in 3	12.19	10.64	9.14	8.66	10.64	9.22	8.28	7.28
		1 in 2.4	12.19	10.89	9.37	8.89	10.97	9.47	8.71	7.72
	38 X 114	1 in 4.8	11.53	9.37	7.13	5.66	9.95	8.30	6.27	4.92
		1 in 4	11.88	10.21	9.37	8.28	10.28	9.44	8.07	7.11
		1 in 3	12.19	10.64	9.37	8.66	10.71	9.44	8.45	7.49
		1 in 2.4	12.19	10.89	9.37	8.89	10.97	9.47	8.71	7.72
	38 X 140	1 in 4.8	11.53	9.90	8.35	6.68	9.95	9.14	7.39	5.86
		1 in 4	11.88	10.21	9.37	8.28	10.28	9.44	8.07	7.11
		1 in 3	12.19	10.64	9.37	8.66	10.71	9.44	8.45	7.49
		1 in 2.4	12.19	10.89	9.37	8.89	10.97	9.47	8.71	7.72
38 X 140	38 X 89	1 in 4.8	10.18	8.73	6.90	5.46	8.35	7.16	5.96	4.74
		1 in 4	11.20	9.85	8.45	7.34	9.27	8.07	6.83	5.89
		1 in 3	12.19	11.48	10.10	8.96	10.64	9.52	8.28	7.28
		1 in 2.4	12.19	12.19	11.35	10.18	11.60	10.59	9.39	8.40
	38 X 114	1 in 4.8	12.19	10.31	7.89	6.29	10.74	9.16	6.95	5.51
		1 in 4	12.19	12.19	10.69	9.42	11.91	10.38	8.78	7.59
		1 in 3	12.19	12.19	11.17	9.90	12.19	11.27	9.67	9.16
		1 in 2.4	12.19	12.19	11.45	10.18	12.19	11.58	9.95	9.44
	38 X 140	1 in 4.8	12.19	12.09	9.34	7.51	12.16	10.41	8.30	6.62
		1 in 4	12.19	12.19	10.69	9.42	12.19	10.79	9.19	8.68
		1 in 3	12.19	12.19	11.17	9.90	12.19	11.27	9.67	9.16
		1 in 2.4	12.19	12.19	11.45	10.18	12.19	11.58	9.95	9.44
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PART 10

RESERVED

PART 11

RESIDENTIAL RENOVATION

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PART 11 RESIDENTIAL RENOVATION

SECTION 11.1 GENERAL

SUBSECTION 11.1.1. SCOPE

11.1.1.1. The scope of this Part shall be as described in Section 2.1.

11.1.1.2.(1) For the purpose of this Part,

- (a) "alternative measure" means a substitute for a requirement in another Part of the Code that is proposed by an applicant for a permit;
- (b) "building system" means a combination of elements or components that form a complete major division of construction in the design of a building or part of a building including a structural or framing system, a waterproofing system, a drainage system, an exterior cladding system, a roofing system, a window system, a partition system, a corridor system, a stair system, a fire alarm system, a sprinkler system or a heating, ventilating or air-conditioning system;
- (c) "heritage building" means a building designated under the Ontario Heritage Act, or a building or part of a building that is demonstrated to the satisfaction of the chief official as being worthy of preservation because of its architectural or historical significance;
- (d) "performance level" means a level of safety provided in a building or in a building system,
 - (i) against fire,
 - (ii) against structural instability, and
 - (iii) against threat to health.

SECTION 11.2 BUILDING SYSTEM

SUBSECTION 11.2.1. EXISTING BUILDING SYSTEM

11.2.1.1.(1) Where an existing building system is altered, the alteration shall provide a performance level that is at least equal to that prior to the alteration.

11.2.1.2. Where an existing building system is extended, the extension shall comply with Subsection 11.2.2.

11.2.1.3. The existing structural floor framing system shall be adequate to support the intended floor loads.

SUBSECTION 11.2.2. NEW BUILDING SYSTEM

11.2.2.1. Except as provided in Subsections 11.2.3. and 11.2.4., the design and construction of a new building system or an extension to an existing building system shall comply with the appropriate Parts of the Code.

SUBSECTION 11.2.3. COMPLIANCE ALTERNATIVES

11.2.3.1.(1) Except as permitted in Sentence (2), a Compliance Alternative to a requirement of Part 3 shown in Table 11.2.3.A., may be substituted for such requirement where it is demonstrated to the chief official that compliance with the requirement is impracticable because,

(a) of structural or construction difficulties;
or

(b) it is a threat to the preservation of a heritage building.

(2) Compliance Alternative A10 of Table 11.2.3.A. may be used for a Part 3 building without the demonstration required in Sentence (1).

(3) A Compliance Alternative to a requirement of Part 9 shown in Table 11.2.3.B. may be substituted for the requirement without the demonstration required in Sentence (1).

SUBSECTION 11.2.4. ALTERNATIVE MEASURES

11.2.4.1.(1) An Alternative Measure to a requirement of Part 3 may be proposed and may be substituted for the requirement where it is demonstrated to, and is accepted by the chief official that compliance with the requirement of Part 3 and the Compliance Alternatives to the requirement shown in Table 11.2.3.A. is impracticable because,

(a) of structural or construction difficulties;
or

(b) it is a threat to the preservation of a heritage building.

(2) An Alternative Measure to a requirement of Part 9 may be proposed and may be substituted for the requirement where it is demonstrated to, and is accepted by the chief official that compliance with the requirement of Part 9 and the Compliance Alternatives to the requirement shown in Table 11.2.3.B. are impracticable because,

- (a) of structural or construction difficulties; or
- (b) it is a threat to the preservation of a heritage building.

SECTION 11.3 PERFORMANCE LEVEL

SUBSECTION 11.3.1. GENERAL

11.3.1.1. The performance level of a building after construction shall not be less than the performance level of the building prior to construction.

SUBSECTION 11.3.2. INCREASE IN OCCUPANT LOAD

11.3.2.1.(1) Except as provided in Sentence (2), construction that increases the occupant load by more than 15 per cent shall be deemed to reduce the performance level of a building.

(2) This Subsection does not apply where the new total occupant load is 16 persons or less, except that where the occupant load is between 10 and 17 persons, an interconnected system of smoke alarms in corridors near stairways is required.

11.3.2.2.(1) Sentence 11.3.2.1.(1) does not apply where the increase in occupant load has been compensated for by compliance with the relevant requirements for,

- (a) access to exit widths based on occupant load in Subsection 3.3.1. or 9.9.3.;
- (b) exit widths based on occupant load in Subsection 3.4.3. or 9.9.3.;
- (c) exit signs in Subsection 3.4.5. or 9.9.10.;
- (d) lighting of exits, lighting of access to exits and emergency lighting in Subsection 3.2.7. or 9.9.11.; and
- (e) fire alarm system in Subsection 3.2.4. or 9.10.17.

SUBSECTION 11.3.3. CHANGE IN OCCUPANCY

11.3.3.1.(1) Where a building or part of a building is changed to a residential occupancy, the building or part of the building shall comply with the applicable requirements of Clauses 11.3.2.2.(1)(a) to (e).

(2) Where a building or part of a building, constructed of combustible construction is changed to a residential occupancy that would be required to be constructed of noncombustible construction if it was a new building, such requirements shall be deemed to be satisfied provided,

(a) Compliance Alternative A-10 in Table 11.2.3.A. is used; or

(b) an Alternative Measure is used that will provide a similar level of safety in Clause (a).

SUBSECTION 11.3.4. PORTIONS OF EXTENDED BUILDINGS

11.3.4.1.(1) Where a building is extended, this Part applies to the performance level of only the existing portion of the building.

(2) Except as required in Sentence (3), the extended portion of the building shall comply with all other Parts of the Code.

(3) Where the occupant load of the building after extension is increased by more than 15 per cent, the requirements of Subsections 11.3.1. and 11.3.2. shall also apply to the extended portion of the building.

Table 11.2.3.A.
COMPLIANCE ALTERNATIVES
Forming Part of Sentence 11.2.3.1.(1)

Number	Part 3 Requirement	Part 11 Compliance Alternative
A1	<p>3.1.3.2.(1)</p> <p><u>Fire separation between Group C residential occupancy and Group E mercantile occupancy shall have a 2 h fire-resistance rating, where there are more than two dwelling units in the building.</u></p>	<p>1 h <u>fire separation</u> is acceptable where the <u>mercantile occupancy</u> is equipped with a supervised sprinkler system, and a fire alarm system is installed throughout the <u>building</u>.</p>
A2	<p>3.1.5.1.(1)</p> <p>Where a material, assembly of materials or structural member is required to have a <u>fire-resistance rating</u>, it must be tested in accordance with CAN4-S101.</p>	<p><u>Fire-resistance ratings</u> may also be used where they are based on:</p> <ol style="list-style-type: none"> 1. HUD No. 8 Guideline on Fire Ratings of Archaic Materials and Assemblies. 2. Fire Endurance of Protected Steel Columns and Beams, DBR Technical Paper No. 194. 3. Fire Endurance of Unit Masonry Walls, DBR Technical Paper No. 207. 4. Fire Endurance of Light-Framed and Miscellaneous Assemblies, DBR Technical Paper No. 222.
A3	<p>3.1.5.4.(3)</p> <p><u>Fire separations</u> required to be of <u>noncombustible construction</u> and have a <u>fire-resistance rating</u>, must be supported by <u>noncombustible construction</u></p>	<p><u>Fire separations</u> may be supported by <u>combustible construction</u>, having at least the same <u>fire-resistance rating</u> as that supported.</p>
Col. 1	2	3

Table 11.2.3.A. (Cont'd)
COMPLIANCE ALTERNATIVES
Forming Part of Sentence 11.2.3.1.(1)

Number	Part 3 Requirement	Part 11 Compliance Alternative
A4	3.1.6.7.(1) and 3.1.6.4.(4) 20 min labelled door assembly.	Existing unlabelled doors in existing <u>buildings</u> : at least 45 mm solid core wood or metal clad are acceptable.
A5	3.1.6.4.(4)(b) Every <u>closure</u> required to have a <u>fire-protection rating</u> shall have a label or a classification mark to identify the testing laboratory.	Existing doors in existing <u>buildings</u> that are either hollow metal or kalamein and containing wired glass at least 6 mm thick and conforming to 3.1.6.10.(2) are permitted in lieu of doors not required to exceed 3/4 h. All existing hollow metal or kalamein doors which carry existing 1 1/2 h labels are acceptable in lieu of current 1 1/2 h labels, and may contain wired glass at least 6 mm thick and conforming to 3.1.6.10.(2).
A6	3.1.6.7.(1) 20 min <u>fire-protection rating</u> of <u>closures</u> are required in certain locations.	For existing <u>closure</u> , ratings of 20 min will not be required where the entire <u>floor area</u> is <u>sprinklered</u> .
Col. 1	2	3

Table 11.2.3.A. (Cont'd)
COMPLIANCE ALTERNATIVES
Forming Part of Sentence 11.2.3.1.(1)

Number	Part 3 Requirement	Part 11 Compliance Alternative
A7	<p>3.1.6.10.</p> <p>Wired glass openings in <u>fire separations</u>.</p>	<p>Existing transoms or side-lights located in required <u>fire separations</u> may be retained if wired glass, at least 6 mm thick, is securely fixed to a wood frame of at least 50 mm thickness with steel stops. Operable transoms shall be fixed closed.</p>
A8	<p>3.3.1.3.(3); 3.3.4.2.; 3.4.4.1.</p> <p><u>Fire separations</u> of 3/4 and 1 h are required to separate <u>dwelling units</u>, <u>public corridors</u> and <u>exits</u>.</p>	<p>1/2 h is acceptable in <u>buildings</u> not exceeding 6 <u>storeys</u> in <u>building height</u>, except that 3/4 h is required for <u>exits</u> in <u>buildings</u> exceeding 3 <u>storeys</u> in <u>building height</u>.</p>
A9	<p>3.2.2.27.(2)(c); 3.2.2.28.(2)(d)</p> <p>All loadbearing walls, columns and arches shall have a <u>fire-resistance rating</u> at least equivalent to that required for the supported assembly.</p>	<p>Where an existing <u>building</u> of <u>noncombustible</u> or <u>heavy timber construction</u> is converted to residential use, existing exposed structural assemblies, whose fire resistance is less than would be required by the Code, may be retained where the <u>building</u> is <u>sprinklered</u>.</p>
Col. 1	2	3

Table 11.2.3.A. (Cont'd)
COMPLIANCE ALTERNATIVES
Forming Part of Sentence 11.2.3.1.(1)

Number	Part 3 Requirement	Part 11 Compliance Alternative
A10	<p>3.2.2.28.</p> <p>Residential buildings, up to 6 storeys, shall be <u>non-combustible construction</u>.</p> <p>3.2.2.28.(1)(c) permits the <u>building area</u> to be double if the <u>building</u> is equipped with sprinklers.</p>	<p>Existing <u>buildings of combustible construction</u> may be converted for residential use provided such <u>buildings</u> are <u>sprinklered</u> and they conform otherwise with the requirements of 3.2.2.28., except that 3.2.2.28.(1)(c) would no longer apply.</p>
A11	<p>3.2.3.</p> <p>Area of <u>unprotected openings</u> shall not exceed that required in Table 3.2.3.A.</p>	<p>Area of existing windows need not conform to Table 3.2.3.A.</p> <p>Existing windows in walls of <u>dwelling units</u>, not including windows in front or rear porches, may be relocated to another part of the wall, provided the existing opening is blocked up to provide the same fire rating for the wall, and the projection of the new opening, at a right angle to the property line onto another <u>building</u>, lies no closer than 300 mm from a window in such other <u>building</u>.</p>
A12	<p>3.2.4.15.</p> <p><u>Smoke alarms</u> shall be connected to an electrical circuit.</p>	<p>Such <u>smoke alarms</u> may be battery operated.</p>
Col. 1	2	3

Table 11.2.3.A. (Cont'd)
COMPLIANCE ALTERNATIVES
Forming Part of Sentence 11.2.3.1.(1)

Number	Part 3 Requirement	Part 11 Compliance Alternative
A13	<p>3.3.1.3.(3)</p> <p><u>Public corridors</u> in residential <u>buildings</u> must have a 1 h <u>fire-resistance rating</u>.</p>	<p>No rating required where <u>floor areas</u> are <u>sprinklered</u>.</p>
A14	<p>3.4.1.2.</p> <p>Types of <u>exits</u>.</p>	<p>The following types of <u>exits</u> may also be used:</p> <p>(a) Connected balconies, or</p> <p>(b) Areas of refuge where fire service rescue is possible and that comply with Measure L in the Supplement to the National Building Code 1985.</p>
A15	<p>3.4.2.4.(1)(e)</p> <p>The maximum travel distance to an <u>exit</u> shall be not more than 30 m.</p>	<p>Shall be not more than 38 m,</p> <p>(a) where corridors are separated from <u>dwelling units</u> by a 1 h <u>fire separation</u> including 20 min <u>closures</u>, and where</p> <p>(i) the <u>building</u> is equipped with inter-connected <u>smoke alarms</u> in the corridors to activate a general fire alarm system or</p> <p>(ii) the corridor is <u>sprinklered</u> and such sprinklers function</p>
Col. 1	2	3

Table 11.2.3.A. (Cont'd)
COMPLIANCE ALTERNATIVES
Forming Part of Sentence 11.2.3.1.(1)

Number	Part 3 Requirement	Part 11 Compliance Alternative
A15 Cont'd		<p>as a fire detection system connected to the fire alarm system, or</p> <p>(b) where corridors are separated from <u>dwelling units</u> by construction having less than 1 h <u>fire-resistance rating</u>, and the <u>building</u> is completely <u>sprinklered</u>.</p>
A16	<p>3.4.7.13.</p> <p>Fire escapes shall be metal or concrete.</p>	<p><u>Combustible</u> fire escapes which are protected from fire in accordance with Sentence 3.4.4.1.(5) are permitted or may be reconstructed, or recreated (as in the case of a heritage <u>building</u>).</p>
A17	<p>3.1.6.3.(2)</p> <p>Ceiling must be a fire-rated separation where vertical <u>fire separation</u> stops at ceiling.</p>	<p>Ceiling need not be a fire-rated <u>fire separation</u> where <u>sprinklering of fire compartments</u> on both sides of vertical <u>fire separation</u> is provided and where such <u>fire separation</u> is not required to exceed 1 h.</p>
A18	<p>3.6.1.1.; 3.6.1.2.</p> <p>Height and area of rooms in <u>dwelling units</u>.</p>	<p>The requirements under these articles do not apply.</p>
Col. 1	2	3

Table 11.2.3.A. (Cont'd)
COMPLIANCE ALTERNATIVES
Forming Part of Sentence 11.2.3.1.(1)

Number	Part 3 Requirement	Part 11 Compliance Alternative
A19	<p>3.6.2.1.</p> <p>All rooms used for sleeping and every principal room such as living room, dining room in <u>dwelling units</u> shall be provided with windows in conformance with Table 9.7.1.A.</p>	<p>(a) Where windows are not used as a <u>means of egress</u> and where they do not conflict with ventilation requirements, the minimum glass areas as shown in Table 9.7.1.A. may be reduced by 50 per cent.</p> <p>(b) An existing room converted to an interior room, created by an addition, shall not require a window, provided there is an opening in a dividing wall to an adjoining room, where the adjoining room has a minimum of 5 per cent window area of the combined floor areas, and provided the required ventilation for the combined rooms is maintained.</p>
A20	<p>3.2.5.4.(3)</p> <p>Pipes supplying standpipe systems shall be of size conforming to Table 3.2.5.B.</p>	<p>Existing standpipe systems which contain pipe sizes less than those prescribed in Table 3.2.5.B. are acceptable provided standpipe water flow and pressure are equivalent to that called for in 3.2.5.4.(22), (23) and (24).</p>
Col. 1	2	3

Table 11.2.3.A. (Cont'd)
COMPLIANCE ALTERNATIVES
 Forming Part of Sentence 11.2.3.1.(1)

Number	Part 3 Requirement	Part 11 Compliance Alternative
A21	3.3.4.3.(5); 3.3.4.3.(6) Doorway from <u>dwelling unit</u> into <u>exit</u> stairway or interior corridor.	Doorway from <u>dwelling unit</u> will be permitted to open directly into <u>exit</u> stairway or interior corridor served by a single <u>exit</u> if a fire alarm system complying with 3.2.4. is installed.
Col. 1	2	3

Table 11.2.3.B.
COMPLIANCE ALTERNATIVES
 Forming Part of Sentence 11.2.3.1.(3)

Number	Part 9 Requirement	Part 11 Compliance Alternative
B1	<p>9.3.2.1.</p> <p>Lumber used for joists, rafters, trusses, shall be identified by a grade stamp indicating its grade.</p>	<p>Sound used lumber may be acceptable for reuse without a grade stamp provided that</p> <p>(a) visual examination shows no excessive weakening by holes, notches, nail splits or other damage,</p> <p>(b) where the grade or species is unknown, the minimum grade shall apply for span table use, and</p> <p>(c) lumber has not been subjected to termite infestation.</p>
B2	<p>9.5.</p> <p>Room and Space Dimensions</p>	<p>The requirements under this Section do not apply.</p>
B3	<p>9.6.3.1.</p> <p>Minimum height of doors shall conform to Table 9.6.3.A.</p>	<p>Doors may be lesser heights to suit ceiling heights.</p>
Col. 1	2	3

Table 11.2.3.B. (Cont'd)
COMPLIANCE ALTERNATIVES
Forming Part of Sentence 11.2.3.1.(3)

Number	Part 9 Requirement	Part 11 Compliance Alternative
B4	<p>9.6.5.3.</p> <p>Glass sidelights greater than 500 mm in width that could be mistaken for doors, glass in storm doors and glass sliding doors within or at every entrance to a <u>dwelling unit</u> shall be safety glass of the laminated or tempered type conforming to CAN2-12.1 "Glass, Safety, Tempered or Laminated", or shall be of wired glass conforming to CAN2-12.11, "Glass, Wired, Safety".</p>	<p>Existing doors and sidelights being reused or relocated, need not conform if identified or protected.</p>
B5	<p>9.7.1.2.</p> <p>Except as required in Article 9.7.1.3., the minimum window glass area for rooms in <u>buildings</u> of <u>residential occupancy</u> or which are used for sleeping shall conform to Table 9.7.1.A.</p>	<p>(a) Where windows are not used as a <u>means of egress</u> and where they do not conflict with ventilation requirements, the minimum glass areas as shown in Table 9.7.1.A. may be reduced by 50 per cent.</p> <p>(b) An existing room converted to an interior room created by an addition, shall not require a window, provided there is an opening in a dividing wall to an adjoining room, where the adjoining room has a minimum of 5 per cent window area of the combined floor areas, and provided the required ventilation for the combined rooms is maintained.</p>
Col. 1	2	3

Table 11.2.3.B. (Cont'd)
COMPLIANCE ALTERNATIVES
Forming Part of Sentence 11.2.3.1.(3)

Number	Part 9 Requirement	Part 11 Compliance Alternative
B6	<p>9.8</p> <p>Stairs, Ramps, Handrails and guards.</p>	<p>Replacement or extension of existing stair systems shall be exempt from the provisions of this Section, except that they shall have</p> <p>(a) a minimum width between wall faces of 700 mm, and</p> <p>(b) a minimum clear height over tread nosing of 1800 mm.</p>
B7	<p>9.8.5.3.</p> <p>Only 1 set of winders permitted between floor levels.</p>	<p>Where a stair complies with Subsection 9.8.3., an extension to a stair may contain two sets of winders provided that they are separated by at least 3 treads or a landing.</p>
B8	<p>9.9.2.2.</p> <p>Types of <u>exits</u>.</p>	<p>The following types of <u>exits</u> may also be used:</p> <p>(a) Connected balconies,</p> <p>(b) Areas of refuge where fire service rescue is possible, or</p> <p>(c) <u>Combustible or noncombustible exterior stairways</u> or fire escapes which are protected in accordance</p>
Col. 1	2	3

Continued on next page

Table 11.2.3.B. (Cont'd)
COMPLIANCE ALTERNATIVES
Forming Part of Sentence 11.2.3.1.(3)

Number	Part 9 Requirement	Part 11 Compliance Alternative
B8 Cont'd		with Sentence 3.4.4.1.(5). (These may be reconstructed or recreated, as in the case of a heritage <u>building</u> .)
B9		RESERVED.
B10	<p>9.9.3.4.(1)</p> <p>The width of <u>exit</u> corridor shall be at least 1100 mm and the width of other <u>exits</u> at least 900 mm.</p>	<p>(a) In a <u>building</u> containing not more than four <u>dwelling units</u>, widths of <u>exit</u> corridors and other <u>exits</u> may be as the existing, but no less than 800 mm.</p> <p>(b) In a <u>building</u> containing more than four <u>dwelling units</u>, widths of <u>exit</u> corridors and other <u>exits</u> may be as the existing, but no less than 900 mm.</p>
B11	<p>9.9.3.5.</p> <p>The minimum width of an <u>access to exit</u> shall be 1100 mm for a <u>public corridor</u>.</p>	<p>(a) In a <u>building</u> containing not more than four <u>dwelling units</u>, the minimum width of a <u>public corridor</u> may be 800 mm.</p> <p>(b) In a <u>building</u> containing more than four <u>dwelling units</u>, the minimum width of a <u>public corridor</u> may be 900 mm.</p>
Col. 1	2	3

Continued on next page

Table 11.2.3.8. (Cont'd)
COMPLIANCE ALTERNATIVES
Forming Part of Sentence 11.2.3.1.(3)

Number	Part 9 Requirement	Part 11 Compliance Alternative
B12	<p>9.9.3.6.</p> <p>Minimum width of a stairway or ramp in an <u>access to exit</u> shall be based on 1 unit per 60 persons.</p>	<p>(a) In a <u>building</u> containing not more than four <u>dwelling units</u>, stairway or ramp widths may be as the existing but not less than 800 mm.</p> <p>(b) In a <u>building</u> containing more than four <u>dwelling units</u>, stairway or ramp widths may be as the existing but not less than 900 mm.</p>
B13	<p>9.9.4.2.</p> <p>Every <u>exit</u> shall be separated from the remainder of the <u>building</u> by at least 3/4 h rated <u>fire separation</u>.</p>	<p>In a <u>building</u> that contains not more than four <u>dwelling units</u>, one <u>exit</u> need not be separated from the remainder of the <u>building</u> at the <u>first storey</u> where there are one or more other <u>exits</u> complying with Compliance Alternative B19.</p>
B14	<p>9.9.6.3.</p> <p>Doors in their swing shall not reduce the effective width of <u>exit</u> stairs or landings to less than 750 mm.</p>	<p>Doors in their swing shall not reduce the effective width of <u>exit</u> stairs, passageway, or landings to less than 550 mm.</p>
Col. 1	2	3

Table 11.2.3.B. (Cont'd)
COMPLIANCE ALTERNATIVES
Forming Part of Sentence 11.2.3.1.(3)

Number	Part 9 Requirement	Part 11 Compliance Alternative
B15	<p>9.9.6.7.</p> <p>Where the <u>exit</u> door opens onto a landing such doors shall be no closer than 300 mm to the nearest riser.</p>	<p>Where <u>exit</u> doors open onto a landing, such doors shall not extend beyond the face of the first riser.</p>
B16	<p>9.9.8.8.</p> <p>The lobby shall conform in all respects with the requirements for <u>exits</u>.</p>	<p>In a <u>building</u> containing not more than four <u>dwelling units</u>, existing glazed solid wood doors to lobby may remain in lieu of new 20 minute doors, provided the <u>fire separation</u> is located at the second floor, and a second <u>means of egress</u> from the second <u>storey</u> complies with the Code requirements.</p>
B17	<p>9.10.3.1.</p> <p>Where a <u>fire-resistance rating</u> or a <u>fire-protection rating</u> is required in this Section for an element of a <u>building</u>, such a rating shall be determined in conformance with the test methods described in Part 3, Chapter 2 of the Supplement to the NBC 1985 or with Tables 9.10.3.A. and 9.10.3.B.</p>	<p><u>Fire-resistance ratings</u> may also be used where they are based on</p> <ol style="list-style-type: none"> 1. HUD No. 8 Guideline on Fire Ratings of Archaic Materials and Assemblies. 2. Fire Endurance of Protected Steel Columns and Beams, DBR Technical Paper No. 194. 3. Fire Endurance of Unit Masonry Walls, DBR Technical Paper No. 207.
Col. 1	2	3

Table 11.2.3.B. (Cont'd)
COMPLIANCE ALTERNATIVES
Forming Part of Sentence 11.2.3.1.(3)

Number	Part 9 Requirement	Part 11 Compliance Alternative
B17 Cont'd		4. Fire Endurance of Light-Framed and Miscellaneous Assemblies, DBR Technical Paper No. 222.
B18	9.10.9.16. More than 2 <u>dwelling units</u> shall be separated by a 2 h <u>fire separation</u> from <u>mercantile occupancy</u> .	In lieu of the 2 h <u>fire separation</u> , sprinklers may be used in the <u>mercantile occupancy</u> , with a 1 h <u>fire separation</u> .
B19	9.9.4.2.; 9.10.9.18.; 9.10.9.21. <u>Fire separations</u> of 3/4 h are required to separate <u>exits</u> , <u>suites</u> , and <u>public corridors</u> .	1/2 h is acceptable.
B20	9.10.13.2.(1) A 45 mm thick solid core wood door conforming to CAN4-S113, may be used where 20 min is required.	In a <u>building</u> containing not more than four <u>dwelling units</u> , existing glazed solid wood doors to corridors may remain in lieu of new 20 min doors.
B21	9.10.13.6. Wired glass in a <u>fire separation</u> shall be mounted in steel frames.	Existing transoms or side-lights located in required <u>fire separations</u> may be retained if wired glass at least 6 mm thick is securely
Col. 1	2	3

Table 11.2.3.B. (Cont'd)
COMPLIANCE ALTERNATIVES
Forming Part of Sentence 11.2.3.1.(3)

Number	Part 9 Requirement	Part 11 Compliance Alternative
B21 Cont'd		fixed to a wood frame of at least 50 mm thickness with steel stops. Operable transoms shall be fixed closed.
B22	<p>9.10.14.1.</p> <p>Area of <u>unprotected openings</u> shall not exceed that provided in Table 9.10.14.A.</p> <p>9.10.14.3.(2); 9.10.14.3.(3)</p> <p>Determination of allowable <u>unprotected openings</u></p> <p>Determination of <u>fire-resistance rating</u> of <u>exposing building face</u>.</p>	<p>Area of existing windows need not conform to Table 9.10.14.A. Existing windows in walls of <u>dwelling units</u>, not including windows in front or rear porches, may be relocated to another part of the wall, provided the existing opening is blocked up to provide the same fire rating for the wall, and the projection of the new opening, at a right angle to the property line onto another <u>building</u>, lies not closer than 300 mm from a window in such other <u>building</u>.</p> <p>Where an addition to an existing residential <u>building</u> has its <u>exposing building face</u> further distant from the line than the existing <u>exposing building face</u>, the total area of allowable <u>unprotected openings</u> may be determined under 9.10.14.3.(2) for the combined new and existing <u>exposing building faces</u>,</p> <p align="center">and,</p>
Col. 1	2	3

Continued on next page

Table 11.2.3.B. (Cont'd)
COMPLIANCE ALTERNATIVES
Forming Part of Sentence 11.2.3.1.(3)

Number	Part 9 Requirement	Part 11 Compliance Alternative
B22 Cont'd		<p>a) Where the existing <u>exposing building face</u> has no <u>unprotected openings</u>, or the existing <u>unprotected openings</u> are to be filled in, the total allowable area of <u>unprotected openings</u> may be installed in the new <u>exposing building face</u>, or</p> <p>b) Where the existing <u>unprotected openings</u> are to remain, their area shall be deducted from the total allowable area of <u>unprotected openings</u>, and the balance may be installed in the new <u>exposing building face</u>,</p> <p align="center">and</p> <p>c) 9.10.14.3.(3) applies only to the new <u>exposing building face</u>.</p>
B23	<p>9.10.15.2.</p> <p>Fire stopping between <u>storeys</u>.</p>	<p>Where balloon framing is exposed during renovation, fire stopping shall be provided.</p>
B24	<p>9.10.18.4.</p> <p><u>Smoke alarms</u> shall be connected to an electrical circuit.</p>	<p><u>Smoke alarms</u> may be battery operated.</p>
Col. 1	2	3

Continued on next page

Table 11.2.3.B. (Cont'd)
COMPLIANCE ALTERNATIVES
Forming Part of Sentence 11.2.3.1.(3)

Number	Part 9 Requirement	Part 11 Compliance Alternative
B25	<p>9.19.1.5.</p> <p>Roofs with no attic space shall have unobstructed vent area of not less than 1/150 of the insulated ceiling area.</p>	<p>Where the structure will not practically accommodate the amount specified herein, lesser amounts will be permitted.</p>
B26	<p>9.20.2.2.</p> <p>Used masonry to be free of old mortar, soot or other surface coating, and shall conform to Article 9.20.2.1.</p> <p>9.20.3. Mortar</p>	<p>Used masonry may be reused for patching and filling openings to match adjacent work. Used interior brick may not be used for exterior applications.</p> <p>Archaic mortars may be used to match existing jointing.</p>
B27	<p>9.20.4.1.</p> <p>Maximum average mortar joint thickness shall be 12 mm.</p>	<p>Sound joint techniques may be employed to match existing archaic joints.</p>
B28	<p>9.20.12.1.</p> <p>Corbelling: Horizontal projection of any unit not to exceed 25 mm and a total projection cannot exceed 1/3 of the total wall thickness.</p>	<p>Corbelling may be constructed to match existing or original details, provided that it is structurally adequate for the proposed use.</p>
Col. 1	2	3

Continued on next page

Table 11.2.3.B. (Cont'd)
COMPLIANCE ALTERNATIVES
Forming Part of Sentence 11.2.3.1.(3)

Number	Part 9 Requirement	Part 11 Compliance Alternative
B29	<p>9.22.</p> <p>Fireplaces</p>	<p>Except for Subsections 9.22.8., 9.22.9. and 9.22.10., sound period materials, designs and techniques may be employed in recreated fireplaces.</p>
B30	<p>9.26</p> <p>Thermal Insulation and Vapour Barriers.</p>	<p>Where the structure will not practically accommodate the amounts required, lesser amounts will be permitted.</p> <p>A vapour barrier may consist of paint or other coating with specified perm rating such as two coats of leafing aluminum pigmented paint.</p>
B31	<p>9.29.</p> <p>Stucco</p>	<p>All replacement or recreation of existing stucco may be compatible with the existing materials and application.</p>
B32	<p>9.30.7.</p> <p>Plastering</p>	<p>All replacement or recreation of existing plaster may be compatible with the existing materials and application.</p>
Col. 1	2	3

Continued on next page

Table 11.2.3.B. (Cont'd)
COMPLIANCE ALTERNATIVES
Forming Part of Sentence 11.2.3.1.(3)

Number	Part 9 Requirement	Part 11 Compliance Alternative
B33	<p>9.35.3.3.</p> <p>Meter mounting devices shall be located not more than 3 m back from the front of the single family and semi-detached homes.</p>	<p>Existing meter mounting devices need not be relocated to these requirements during renovations.</p>
B34	<p>9.35.3.4.</p> <p>For an overhead supply the top of the consumer service stand-pipe, and for an underground supply the bottom of the consumer service standpipe, shall be located not more than 3 m from the corner of the <u>building</u>.</p>	<p>Existing overhead and underground supply need not be relocated to these requirements during renovations.</p>
B35	<p>9.38.</p> <p>Log Construction</p>	<p>Sound used materials shall be acceptable for reuse, subject to the following limitations:</p> <p>(a) visual examination shows no excessive weakening by holes, notches, nail splits or other damage;</p> <p>(b) logs have not been subjected to termite infestation.</p>
Col. 1	2	3

Continued on next page

Table 11.2.3.B. (Cont'd)
COMPLIANCE ALTERNATIVES
Forming Part of Sentence 11.2.3.1.(3)

Number	Part 9 Requirement	Part 11 Compliance Alternative
B36	<p>9.34.2.1.</p> <p><u>Stoves</u>, ranges, and space heaters using solid fuels shall conform to ULC S627/CSA B 366.2, "Standard for Space Heaters For Use With Solid Fuels".</p>	<p>Sound, used or antique <u>appliances</u> may be acceptable, provided that</p> <p>(a) visual examination shows no excessive weakening by corrosion or other damage,</p> <p>(b) no structural parts are missing,</p> <p>(c) no cracks are present in the components intended to support the <u>appliance</u> or enclose the fire, and</p> <p>(d) loading and ash removal door latches and hinges hold the door closed.</p>
B37	<p>9.3.0.1.; 9.3.0.2.</p> <p>Materials, systems and equipment, varying from that required under this Part may be used if tested.</p>	<p>Sound used materials, systems and components of systems, and equipment may be accepted for reuse, without requirements for testing.</p>
B38	<p>9.34.1.1.; 9.34.1.2.; 6.2.3.11.(1)</p> <p>In a <u>residential occupancy</u> air from one <u>suite</u> shall not be circulated to any other <u>suite</u> nor to a <u>public corridor</u>.</p>	<p>In a <u>building</u> containing not more than four <u>dwelling units</u> the existing heating or air conditioning system may be extended to serve more than one <u>dwelling unit</u>, provided <u>smoke</u></p>
Col. 1	2	3

Continued on next page

Table 11.2.3.B. (Cont'd)
COMPLIANCE ALTERNATIVES
Forming Part of Sentence 11.2.3.1.(3)

Number	Part 9 Requirement	Part 11 Compliance Alternative
B38 Cont'd		<p><u>alarms</u> are installed in each <u>dwelling unit</u> and provided <u>smoke detectors</u> are installed in the supply and return air duct system serving the entire <u>building</u> which would turn off the fuel supply and electrical power to the heating system upon activation of such detectors.</p>
B39	<p>9.10.13.15.</p> <p><u>Fire dampers</u> required in ducts penetrating a <u>fire separation</u></p>	<p>In a <u>building</u> containing not more than four <u>dwelling units</u>, where the existing heating or air conditioning system is extended to serve more than one <u>dwelling unit</u>, <u>fire dampers</u> are not required in the ducts penetrating required <u>fire separations</u>, provided <u>smoke alarms</u> are installed in each <u>dwelling unit</u> and provided <u>smoke detectors</u> are installed in the supply and return air duct system serving the entire <u>building</u> which would turn off the the fuel supply and electrical power to the heating system upon activation of such detectors.</p>
Col. 1	2	3

REVOCATION

12. Ontario Regulations 583/83 and 549/84 are revoked.

COMMENCEMENT

13. This Regulation comes into force on the 20th day of October, 1986.

(9099)

32

Publications Under The Regulations Act

August 16th, 1986

PROVINCIAL PARKS ACT

O. Reg. 424/86.

General.

Made—July 17th, 1986.

Filed—July 21st, 1986.

REGULATION TO AMEND REGULATION 822 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE PROVINCIAL PARKS ACT

1. Clause 1 (1) of Regulation 822 of Revised Regulations of Ontario, 1980 is revoked:

2. Subsections 12 (1), (3), (5), (6) and (7) of the said Regulation are revoked and the following substituted therefor:

(1) Subject to subsection (2), a camp-site and vehicle permit authorizes the permittee and registered guests of the permittee to occupy the camp-site designated until 2.00 p.m. of the departure date shown. O. Reg. 424/86, s. 2, *part.*

.

(3) No person shall camp under the authority of a camp-site and vehicle permit in a provincial park for more than twenty-three days in a year except where there is a camp-site available that is not required by any other person and a new camp-site and vehicle permit is obtained therefor. O. Reg. 424/86, s. 2, *part.*

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(5) The permit of a person contravening subsection (2) or (3) is thereupon cancelled. O. Reg. 424/86, s. 2, *part.*

3. Section 16 of the said Regulation is revoked and the following substituted therefor:

16. No person shall beg, solicit or invite subscriptions or contributions within a provincial park. O. Reg. 424/86, s. 3.

4. Section 17 of the said Regulation, as amended by section 5 of Ontario Regulation 188/84 and section 2 of Ontario Regulation 51/86, is further amended by adding thereto the following subsection:

(4) No person shall have, in a provincial park, a motor vehicle that does not have displayed, in a conspicuous manner a current,

(a) daily vehicle permit;

(b) annual vehicle permit;

(c) camp-site and vehicle permit;

(d) interior camping permit;

(e) daily winter trails permit; or

(f) daily bus permit,

issued by the Ministry. O. Reg. 424/86, s. 4.

5. Clause 23 (1) (b) of the said Regulation is revoked and the following substituted therefor:

(b) under a daily vehicle permit, an annual vehicle permit or a daily winter trails permit.

6.—(1) Clause 29 (1) (n) of the said Regulation is revoked and the following substituted therefor:

(n) Killarney Provincial Park;

(2) Subsection 29 (2) of the said Regulation, as amended by section 4 of Ontario Regulation 569/82, subsection 2 (2) of Ontario Regulation 644/83, subsection 2 (2) of Ontario Regulation 546/84 and subsection 1 (1) of Ontario Regulation 9/86, is further amended by striking out "and" at the end of clause (c), by adding "and" at the end of clause (e) and by adding thereto the following clause:

(f) in Killarney Provincial Park a person may operate a power boat on Baie Fine Lake, Balsam Lake, Beaver Lake, Bell Lake, Carlyle Lake, Cat Lake, David Lake, Deacon Lake, Fish Lake, Fox Lake, Gail Lake, Gem Lake, Goose Lake, Grace Lake, Great Mountain Lake, Grow Lake, Hanwood Lake, Harry Lake, Helen Lake, Howry Lake, Ismael Lake, Johnnie Lake, Little Bell Lake, Little Mink Lake, Log Boom Lake, Mink Lake, Moose Lake, Murray Lake, Otter Lake, Rocky Lake, Round Otter Lake, Shigaug Lake, Three Narrows Lake, Van Lake, Van Winkle Lake.

(9121)

33

PLANNING ACT, 1983

O. Reg. 425/86.

Withdrawal of Delegation of Authority of Minister under Subsection 4 (4) of the Planning Act, 1983.

Made—July 21st, 1986.

Filed—July 21st, 1986.

REGULATION MADE UNDER THE PLANNING ACT, 1983

WITHDRAWAL OF DELEGATION OF AUTHORITY OF MINISTER UNDER SUBSECTION 4 (4) OF THE PLANNING ACT, 1983

1. The authority under section 50 of the *Planning Act, 1983* delegated to the council of The Regional Municipality of York by Ontario Regulation 476/83 is hereby withdrawn in respect of the application by Johnson, Sustronk, Weinstein and Associates Limited on behalf of Cadillac Fairview Corporation Limited,

the registered owner at the date of application of property described as Lot 6, Concession I, Town of Vaughan, for approval of a plan of subdivision with respect to the said property, which application is under File No. 19T-79026 of the Regional Municipality, said property now being owned by Gartley Kids Inc. and E.K. Birchill Properties Inc. O. Reg. 425/86, s. 1.

BERNARD GRANDMAÎTRE
Minister of Municipal Affairs

Dated at Toronto, this 21st day of July, 1986.

(9122)

33

ST. LAWRENCE PARKS COMMISSION ACT

O. Reg. 426/86.

Parks.

Made—July 4th, 1986.

Approved—July 17th, 1986.

Filed—July 22nd, 1986.

REGULATION TO AMEND REGULATION 909 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE ST. LAWRENCE PARKS COMMISSION ACT

1. Subsections 28 (2), (3) and (4) of Regulation 909 of Revised Regulations of Ontario, 1980, as remade by section 2 of Ontario Regulation 198/86, are revoked and the following substituted therefor:

(2) The fees payable by a senior citizen for a campsite are set out in Schedule A.

(3) Group camping may be permitted, if sites are available, at the Adolphustown, Grenville, Morrison Island and Brown's Bay parks; at the rate of \$5.50 per site per day plus,

(a) 50 cents per day for each person who is under eighteen years of age; and

(b) \$1 per day for all other persons.

(4) Youth group camping may be permitted free of charge if a request is made to the officer at least two weeks in advance and a site is available for group camping in an area operated by the officer. O. Reg. 426/86, s. 1.

2. The said Regulation is amended by adding thereto the following Schedule:

Schedule A

In this Schedule, "week night" means any night except Friday night, Saturday night or the night before a statutory holiday.

	Week night	Other than week night
1. Camp-site per night:		
(a) with electrical power and comfort station	none	\$ 5.00
(b) without electrical power and with comfort station	none	4.00
(c) without electrical power and without a comfort station	none	3.50
2. Group camping, per night:		
(a) basic group fee	none	2.75
(b) additional fee for each member of the group	none	.50

O. Reg. 426/86, s. 2.

THE ST. LAWRENCE PARKS COMMISSION:

GEORGE SPEAL
Chairman

ROBERT A. COOK
General Manager

Dated at Morrisburg, this 4th day of July, 1986.

(9123)

33

PLANNING ACT, 1983

O. Reg. 427/86.

Restricted Areas—Territorial District of Sudbury.

Made—July 9th, 1986.

Filed—July 22nd, 1986.

REGULATION TO AMEND
ONTARIO REGULATION 834/81
MADE UNDER THE
PLANNING ACT, 1983

1. Schedule 1 to Ontario Regulation 834/81 is amended by adding thereto the following sections:

71.—(1) A single dwelling may be erected and used on the land described in subsection (2) provided that the rear yard is at least 20 metres.

(2) Subsection (1) applies to that parcel of land in the geographic Township of Burwash in the Territorial District of Sudbury, being part of the west half of Lot 10, Concession III, shown as Parcel 2933 SES in the Land Registry Office for the Land Titles Division of Sudbury (No. 53).

72.—(1) A mobile home may be erected, located and used on the land described in subsection (2).

(2) Subsection (1) applies to that parcel of land in the geographic Township of Awrey in the Territorial District of Sudbury, being those parts of lots 11 and 12 shown as Parcels 354425A and 23864 in the Land Registry Office for the Land Titles Division of Sudbury (No. 53).

PAULINE MORRIS
Director
Plans Administration Branch
North and East
Ministry of Municipal Affairs

Dated at Toronto, this 9th day of July, 1986.

(9124)

33

LAND TRANSFER TAX ACT

O. Reg. 428/86.

Rates of Interest.

Made—July 17th, 1986.

Filed—July 22nd, 1986.

REGULATION TO AMEND ONTARIO REGULATION 516/83 MADE UNDER THE LAND TRANSFER TAX ACT

1. Subsection 1 (2) of Ontario Regulation 516/83, exclusive of the clauses, is revoked and the following substituted therefor:

(2) Notwithstanding subsection (1), where an amount in respect of a refund is made under subsection 4 (6) or section 7 of the Act or where an amount in respect of a rebate is made under subsection 16 (2) of the Act, interest shall be paid or applied thereon for the period commencing on the day the overpayment arose and ending with the day of refunding at,

(9125)

33

MUNICIPAL BOUNDARY NEGOTIATIONS ACT, 1981

O. Reg. 429/86.

City of Brockville, Township of
Elizabethtown Boundary.

Made—July 17th, 1986.

Filed—July 23rd, 1986.

ORDER IN COUNCIL

R.O.C. 266/86

WHEREAS The Corporation of the City of Brockville and The Corporation of the Township of Elizabethtown have entered into an agreement dated the 17th day of April, 1986 for the resolution of certain boundary issues;

AND WHEREAS public notice was given by the Clerk of the Executive Council under subsection 17 (1) of the *Municipal Boundary Negotiations Act, 1981* of the intention to make an order implementing the inter-municipal agreement;

AND WHEREAS no objections to the proposed issuance of the Order were filed with the Clerk of the Executive Council within the filing period;

NOW THEREFORE, on the recommendation of the undersigned, the Lieutenant Governor, by and with the advice and concurrence of the Executive Council, orders under section 14 of the *Municipal Boundary Negotiations Act, 1981* that,

1. On the 1st day of August, 1986, the portion of the Township of Elizabethtown described in the Schedule is annexed to the City of Brockville.

2. All real property of The Corporation of the Township of Elizabethtown situate in the annexed area vests in The Corporation of the City of Brockville on the 1st day of August, 1986.

3. On the 1st day of August, 1986, the by-laws of The Corporation of the City of Brockville extend to the annexed area and the by-laws of The Corporation of the Township of Elizabethtown cease to apply to such area, except,

(a) by-laws that were passed,

(i) by the council of The Corporation of the Township of Elizabethtown under section 34 or 41 of the *Planning Act, 1983* or a predecessor of those sections, or

(ii) by the council of The Corporation of the Township of Elizabethtown that are kept in force by subsection 13 (3) of *The Municipal Amendment Act, 1941*,

which shall remain in force until repealed by the council of The Corporation of the City of Brockville; and

(b) by-laws conferring rights, privileges, franchises, immunities or exemptions that could not have been lawfully repealed by the council of The Corporation of the Township of Elizabethtown.

4. The clerk of The Corporation of the Township of Elizabethtown shall forthwith prepare and furnish to the clerk of The Corporation of the City of Brockville a special collector's roll showing all arrears of taxes or special rates assessed against the lands in the annexed area up to and including the 31st day of July, 1986 and the persons assessed therefor.

5.—(1) All real property taxes levied under any general or special Act and uncollected in the annexed area which are due and unpaid on the 1st day of August, 1986 shall be deemed on that date to be taxes due and payable to The Corporation of the City of Brockville and may be collected by The Corporation of the City of Brockville.

(2) On or before the 31st day of October, 1986, The Corporation of the City of Brockville shall pay to The Corporation of the Township of Elizabethtown an amount equal to the amount of all real property taxes

that The Corporation of the City of Brockville is entitled to collect in the annexed area under subsection (1) which were due but unpaid on the 1st day of August, 1986.

6. All business taxes levied and uncollected in the annexed area which are due and unpaid on the 31st day of July, 1986 shall continue after that date to be taxes due and payable to The Corporation of the Township of Elizabethtown and may be collected by The Corporation of the Township of Elizabethtown.

7.—(1) The assessment of land in the annexed area upon which the taxes after the 31st day of July, 1986 shall be levied shall be determined by the Assessment Commissioner in accordance with the classes of real property and the factors prescribed for The Corporation of the City of Brockville by regulations made under the *Assessment Act*.

(2) Where the Assessment Commissioner makes an assessment in accordance with subsection (1), section 34 of the *Assessment Act* applies to the assessment.

8. The agreement between The Corporation of the City of Brockville and The Corporation of the Township of Elizabethtown entered into on the 17th day of April, 1986 is hereby given effect. O. Reg. 429/86.

Recommended

BERNARD GRANDMAÎTRE
*Minister of Municipal
Affairs*

Concurred

JAMES BRADLEY
Chairman

Approved and Ordered, July 17th, 1986.

LINCOLN M. ALEXANDER
Lieutenant Governor

Schedule

The portion of the Township of Elizabethtown, described as follows, is annexed to the City of Brockville:

Premising that the bearings herein are astronomic and are derived from the southerly limit of the King's Highway Number 2 as shown on a Plan registered in the Land Registry Office for the Registry Division of Leeds (No. 28) as Number 534 and having a bearing of north 69° 23' 43" east;

Beginning at the intersection of the westerly boundary of the City of Brockville and the southerly limit of the King's Highway Number 2;

Thence south 69° 23' 43" west along the said southerly limit 110.68 metres to the northwesterly angle of Part 1 as shown on a Plan deposited in the said Land Registry Office as Number 28R-2422;

Thence south 29° 16' east 91.01 metres to a point;

Thence south 42° 45' 30" east 95.66 metres to a point;

Thence south 30° 44' 10" east 93.42 metres to a point;

Thence south 30° 32' 30" east 41.25 metres to a point in the original high water mark of the St. Lawrence River;

Thence north 69° 00' east to the westerly boundary of the City of Brockville;

Thence northerly along the said westerly boundary to the place of beginning. O. Reg. 429/86, Sched.

(9126)

33

PLANNING ACT, 1983

O. Reg. 430/86.

Zoning Areas—District of Thunder Bay,
Geographic Township of Pic.

Made—July 18th, 1986.

Filed—July 23rd, 1986.

REGULATION TO AMEND ONTARIO REGULATION 688/84 MADE UNDER THE PLANNING ACT, 1983

1. Ontario Regulation 688/84 is amended by adding thereto the following section:

20.—(1) Despite any other provision of this Order,

(a) storage silos for materials used in the manufacture of concrete products;

(b) a weigh scale; and

(c) a building used for offices and the storage of maintenance equipment,

may be erected and used on each of the lands described in subsection (2) if the following requirements are met:

Maximum number of
storage silos 6

Maximum ground floor
area of storage silos 1,500 square metres

Maximum ground floor
area of office and
maintenance building 230 square metres

Maximum ground floor
area of weigh scale 70 square metres

(2) Subsection (1) applies to those parcels of land in the geographic Township of Pic in the Territorial District of Thunder Bay being,

- (a) Parcel 7047; and
- (b) Parcel 2351, Thunder Bay Leasehold, more particularly described as Parts 1 and 2 on Plan Number 55R-1459,

in the Land Registry Office for the Land Titles Division of Thunder Bay (No. 55). O. Reg. 430/86, s. 1.

PAULINE MORRIS
Director
Plans Administration Branch
North and East
Ministry of Municipal Affairs

Dated at Toronto, this 18th day of July, 1986.

(9127) 33

ENVIRONMENTAL ASSESSMENT ACT

O. Reg. 431/86.

Exemption—St. Catharines Hydro-Electric
Commission—STCA—C-1.
Made—July 17th, 1986.
Approved—July 17th, 1986.
Filed—July 23rd, 1986.

ORDER MADE UNDER THE ENVIRONMENTAL ASSESSMENT ACT

EXEMPTION—ST. CATHARINES HYDRO-ELECTRIC COMMISSION—STCA—C-1

Having received a request from the St. Catharines Hydro-Electric Commission that an undertaking, namely:

to construct and operate a 6-MW hydroelectric generating station using the water flowing from Martindale Pond into Port Dalhousie Harbour for the generation of electricity for the City of St. Catharines

be exempt from the application of the Act pursuant to section 29; and

Having been advised that if the undertaking is subject to the application of the Act, the following injury, damage or interference with the persons and property indicated will occur:

- A. The St. Catharines Hydro-Electric Commission and its customers will be interfered with if an environmental assessment is required

for a proposal which is a progressive step toward wise resource management by the development of a small-scale hydro facility with negligible adverse environmental impacts; and

- B. Delay of the project will reduce and/or delay the following positive benefits created by the development:
 - an economic savings of an inflation-free source of energy for the City of St. Catharines
 - the employment opportunities created during construction of the facility and manufacturing of generating equipment
 - the reduction in turbulence and corresponding benefit to recreational boating in the Harbour.

Having weighed such injury, damage or interference against the betterment of the people of the whole or any part of Ontario by the protection, conservation and wise management in Ontario of the environment which would result from the undertaking being subject to the application of the Act;

The undersigned is of the opinion that it is in the public interest to order and orders that the undertaking is exempt from the application of the Act for the following reasons:

- A. The proponent has prepared an Environmental Study Report, a copy of which is filed with the Environmental Assessment Branch of the Ministry and placed on the public records kept by the Branch at the Ministry's main office under section 31 of the Act, advising that the environmental effects of construction and operation of the proposed powerhouse will be limited and not adverse;
- B. The public and property owners have been made aware of the proposed development and any concerns raised have been satisfied;
- C. The proponent has initiated pre-submission consultation with the Ministry and various government agencies involved and will maintain this contact throughout the planning and construction stages.

This exemption is subject to the following terms and conditions:

- 1. This exemption shall expire if construction is not commenced by June 30, 1987.
- 2. If there is any claim that harbour navigation has been detrimentally affected, which claim cannot otherwise be resolved, then an independent arbitrator shall determine whether

or not in fact harbour navigation and docking of boats in the harbour area and more particularly Snug Harbour Marina has been detrimentally affected, and if it has been, the St. Catharines Hydro-Electric Commission will remedy the situation at its expense.

3. The hydro-electric generating station will be designed so noise levels produced during operation are as low as practicable and not above ambient levels.
4. To reduce noise and vibration problems associated with the construction phase of the project, the following control measures will be implemented:
 - (a) all the construction equipment will be well maintained;
 - (b) all appropriate construction equipment will be fitted with mufflers in good working order;
 - (c) special care shall be taken so that blasting noise and vibration are kept at a minimum level;
 - (d) a pre-blasting survey shall be conducted in surrounding residences.
5. Sediment and earth from the site will be disposed of in a manner, satisfactory to the Ministry of the Environment's West Central Region.
6. The planning, design and implementation process for the facility will be carried out according to the Environmental Study Report and recommendations contained therein and will be made known to the public and property owners in the area.
7. The proponent shall notify the Director of the Environmental Assessment Branch in writing by December 31, 1988 of how conditions 3, 4, 5 and 6 have been met. O. Reg. 431/86.

JAMES BRADLEY
Minister of the Environment

(9128)

33

ENVIRONMENTAL ASSESSMENT ACT

O. Reg. 432/86.

Exemption—The Regional Municipality of Haldimand-Norfolk—RMHN-1.

Made—July 17th, 1986.

Approved—July 17th, 1986.

Filed—July 23rd, 1986.

ORDER MADE UNDER THE ENVIRONMENTAL ASSESSMENT ACT

EXEMPTION—THE REGIONAL MUNICIPALITY OF HALDIMAND-NORFOLK—RMHN-1

Having received a request from The Regional Municipality of Haldimand-Norfolk (the "Region") that an undertaking, namely:

The expansion, as an interim measure, of the geographical area served by the Tom Howe Waste Disposal Site, situated on Lot 7, Concession 16, in the City of Nanticoke, in The Regional Municipality of Haldimand-Norfolk, formerly in the geographic Township of Walpole, County of Haldimand for the disposal of domestic, commercial and non-hazardous solid industrial waste

be exempt from the application of the Act pursuant to section 29; and

Having been advised that if the undertaking is subject to the application of the Act, the following injury, damage or interference with the persons and property indicated will occur:

- A. The Region will be subject to delay and expense if it is required to prepare an environmental assessment for the undertaking.
- B. Disposal at other existing Regional sites would result in a significant decrease in capacity and cause the sites to be closed without sufficient time for the Region to establish a long-term waste management program.

Having weighed such injury, damage or interference against the betterment of the people of the whole or any part of Ontario by the protection, conservation and wise management in Ontario of the environment which would result from the undertaking being subject to the application of the Act;

The undersigned is of the opinion that it is in the public interest to order and orders that the undertaking is exempt from the application of the Act for the following reasons:

- A. The undertaking is clearly an interim measure for which there is no other reasonable waste management alternative available within the necessary time frame.
- B. The proposal to increase the volume of waste deposited at the Tom Howe Waste Disposal Site is not a major undertaking and will not have a significant effect on the environment, as it is defined in the *Environmental Assessment Act*, including adjacent persons or property.

C. The expansion of the site's service area to accept the additional waste volume will require that a hearing be held and an approval be issued under Part V of the *Environmental Protection Act*.

D. As part of the process in obtaining an amended Certificate, the Region has made provision in its Consultant's Terms of Reference for a public meeting to be convened.

E. The Region is presently conducting a long-term waste management study in accordance with the *Environmental Assessment Act*.

This exemption is subject to the following terms and conditions:

1. No waste shall be deposited at the Tom Howe Waste Disposal Site pursuant to this order more than five years after the date of the Provisional Certificate of Approval or Certificate of Approval which is issued under Part V of the *Environmental Protection Act* for purposes of this order.
2. Condition 1 does not prevent the continued use of the Tom Howe Waste Disposal Site for waste from the area it was certified to serve prior to the issuance of the March 1, 1985 Emergency Certificate of Approval under section 31 of the *Environmental Protection Act*.
3. The Region notify the Springvale Concerned Citizens Group and the Mississaugas of New Credit within one week of any application submitted to the Ministry of the Environment under Part V of the *Environmental Protection Act* for the interim expansion of the Site's service area.
4. The Region continue to vigorously pursue a long-term waste management program in accordance with the *Environmental Assessment Act* within the five-year interim period.
5. The Region provide the Springvale Citizens Group and the Mississaugas of New Credit with a copy of all study reports, including test results from surface and ground water samples that relate to the application submitted to the Ministry of the Environment under Part V of the *Environmental Protection Act* for continued operation of the Tom Howe Site.
6. The Region notify in writing the Director, Environmental Assessment Branch, Ministry of the Environment, of how the Region is complying with Conditions 2 and 4 within one month of submitting the application for a Certificate of Approval under Part V of the

Environmental Protection Act. O. Reg. 432/86.

JAMES BRADLEY
Minister of the Environment

(9129)

33

ENVIRONMENTAL ASSESSMENT ACT

O. Reg. 433/86.

Exemption—Counties of Frontenac and Lennox and Addington.

Made—July 17th, 1986.

Approved—July 17th, 1986.

Filed—July 23rd, 1986.

ORDER MADE UNDER THE ENVIRONMENTAL ASSESSMENT ACT

EXEMPTION—COUNTIES OF FRONTENAC AND LENNOX AND ADDINGTON

Having received a request from The Corporation of the County of Frontenac and The Corporation of the County of Lennox and Addington that an undertaking, namely:

The construction and operation of the extension of Coronation Boulevard in the Community of Amherstview to Taylor-Kidd Boulevard in the Community of Collins Bay

be exempt from the application of the Act pursuant to section 29; and

Having been advised by The Corporation of the County of Frontenac Roads Department that if the undertaking is subject to the application of the Act, the following injury, damage or interference with the persons and property indicated will occur:

- A. Travel by the residents between the communities of Amherstview and Collins Bay will be impaired since the only highway between the two (Highway 33) is scheduled for reconstruction by the Ministry of Transportation and Communications and the reconstruction would be delayed if the Coronation Boulevard alternative route is not in place; and
- B. The Counties of Frontenac and Lennox and Addington and the public who rely on the use of Highway 33 will be unduly interfered with if an environmental assessment is required for a project that is not going to have significant adverse environmental impacts.

Having weighed such injury, damage or interference against the betterment of the people of the whole or any part of Ontario by the protection, conservation

and wise management in Ontario of the environment which would result from the undertaking being subject to the application of the Act;

The undersigned is of the opinion that it is in the public interest to order and orders that the undertaking is exempt from the application of the Act for the following reasons:

- A. The proponents have advised that the affected land owners have agreed to make available the necessary lands for the undertaking and are satisfied with the compensation offered by the proponent; and
- B. The proponent advises that no significant long term adverse environmental impacts are anticipated but only short term impacts associated with construction and those impacts will be mitigated as set out in the terms and conditions of this Order.

This exemption is subject to the following terms and conditions:

1. Construction practices shall comply with the Ministry of the Environment publication "Evaluating Construction Activities Impacting on Water Resources" and in particular "Guidelines for Construction of Highways and Bridges, March 19, 1984", a copy of which can be obtained by contacting the Ministry's Kingston Regional Office.
2. The proponent shall contact the staff of the Napanee District Office, Ministry of Natural Resources, prior to construction for their requirements for maintaining wetland water levels and construction shall be carried out in accordance with such requirements.
3. The proponent shall include in the contract for the project a provision that landfilling beyond the road allowance shall be prohibited unless prior permission is obtained from the Ministry of Natural Resources office mentioned above and construction shall be carried out accordingly.
4. The proponent shall contact staff of the Cataraqui Region Conservation Authority who will determine those periods of time during the year when construction may occur in the swampy portion of the area known as Queen's Acres and construction in those areas shall not proceed except during the periods indicated.
5. The proponent shall advise the Director of the Environmental Assessment Branch in writing:

- (a) within fourteen days of the commencement of construction, the date

on which construction commenced; and

- (b) within sixty days of the completion of construction, how the first four conditions of this Order were met.

6. This Order shall expire if construction has not commenced by October 30, 1986.
O. Reg. 433/86.

JAMES BRADLEY
Minister of the Environment

(9130)

33

RENTAL HOUSING PROTECTION ACT, 1986

O. Reg. 434/86.

General.

Made—July 24th, 1986.

Filed—July 24th, 1986.

REGULATION MADE UNDER THE RENTAL HOUSING PROTECTION ACT, 1986

GENERAL

1.—(1) All municipalities are exempt from the Act except those listed in Schedule 1.

(2) Subsection (1) does not apply with respect to a conversion to a condominium. O. Reg. 434/86, s. 1.

2.—(1) A rental residential property is exempt from the Act if the number of units in the building, including the number of rental units, is four or less.

(2) Subsection (1) does not apply in respect of a conversion to a condominium. O. Reg. 434/86, s. 2.

3. A rental residential property that is the subject of an order for demolition under subsection 10 (4) of the *Building Code Act* or an order or direction for removal under the *Fire Marshals Act* is exempt from the Act. O. Reg. 434/86, s. 3.

4. A rental residential property listed in Schedule 2 is exempt from the Act. O. Reg. 434/86, s. 4.

5. Any building that,

- (a) was constructed for residential condominium purposes and for which draft approval was obtained under section 50 of the *Condominium Act*; and

- (b) is used as a rental residential property pending final approval under the *Condominium Act*,

is exempt from the Act. O. Reg. 434/86, s. 5.

6. Any building owned or operated by any government non-profit housing corporation is exempt from the Act. O. Reg. 434/86, s. 6.

7. A sale, a lease or an agreement for sale of a share or an interest in a co-operative is exempt from subsection 5 (1) of the Act if,

- (a) the sale, lease or agreement for sale is of a unit in a rental residential property where the number of units in the building, including the number of rental units, is four or less;
- (b) an agreement to enter into the lease or the agreement for sale was entered into before the 10th day of July, 1986;
- (c) the co-operative was created before the 10th day of July, 1986;
- (d) the share or interest is one where the vendor does not and never has had a right to present or future exclusive possession of a dwelling unit in the building or related group of buildings; or
- (e) the share or interest has previously been transferred with the approval of the municipality. O. Reg. 434/86, s. 7.

8.—(1) The council of a municipality shall not approve an application under the Act unless the council is satisfied that at least one of the following criteria is met:

- 1. In the case of an application for,
 - i. demolition, the rental residential property is found by council to be unsafe and unfit for human habitation, and
 - ii. in the case of renovation or repair, the council finds that the rental residential property would be unsafe and unfit for human habitation if the renovation or repair was not approved, and, in the case where tenants are in occupation of the unit, that vacant possession is required to effect the renovation or repair.
- 2. The applicant agrees,
 - i. to provide the same number of new rental units in a similar rental range and in the same area as those for which approval is given, and
 - ii. to provide rental accommodation in the same area of similar quality and rent, either in the new rental units or in other existing rental residential

property, to any tenant who is required to give up possession of a rental unit as a result of the approval.

3. In the opinion of council, the proposal does not adversely affect the supply of affordable rental housing in the municipality.

(2) Subsection (1) does not apply to an application for conversion to a condominium if the number of units in the building, including the number of rental units, is four or less or if the building is in a municipality that is exempt from the Act under section 1. O. Reg. 434/86, s. 8.

9. An application for a demolition under clause 4 (1) (a) of the Act shall contain the following information:

- 1. Local municipality and municipal address.
- 2. Lot number, concession number.
- 3. Name, address and telephone number of registered owner.
- 4. Name, address and telephone number of agent or solicitor.
- 5. Nature of demolition sought (partial, complete).
- 6. Reason(s) for demolition.
- 7. Application for building permit made and the date of application; date granted.
- 8. Number of existing units in the building, specifying the number of units now occupied for residential purposes.
- 9. Range of rents in the building — list by unit type (bachelor, one bedroom, etc.).
- 10. If units vacant, date(s) of vacancy.
- 11. Date of construction of building.
- 12. Gross floor area.
- 13. Number of storeys.
- 14. Height of building.
- 15. Registered plan number or reference plan number.
- 16. A sworn declaration or affirmation by the applicant that all statements contained in the application are true and is made with the knowledge that it is of the same force and effect as if made under oath and by virtue of the *Canada Evidence Act*. O. Reg. 434/86, s. 9.

10. An application for a conversion to a condominium under clause 4 (1) (b) of the Act shall contain the following information:

1. Local municipality and municipal address.
2. Lot number, concession number.
3. Number of registered plan, date of registration and file number of approval authority.
4. Any prior application made for condominium approval, including the previous file number.
5. Name, address and telephone number of registered owner.
6. Name, address and telephone number of agent, solicitor or planning consultant.
7. Name, address and telephone number of Ontario Land Surveyor.
8. Proposed land use:
 - double or semi-detached, duplex, triplex, single row attached, other multiple attached, apartments, commercial, industrial, other (specify).
9. Number of existing units in the building specifying the number of units used for residential purposes that are occupied or vacant and the date(s) of vacancies.
10. Number of condominium units proposed (specify, residential, commercial, etc.).
11. Date of construction of existing building.
12. Gross floor area.
13. Number of storeys.
14. Density proposed (specify units per hectare).
15. Internal roadways.
16. Parking provided.
17. Landscaping and recreational amenities.
18. Land use designation for property in an approved regional or county official plan or amendment, and number of the amendment (if applicable).
19. Land use designation for property in an approved local official plan or amendment, and number of the amendment (if any).
20. Zoning of the property in an approved zoning by-law or zoning order.

21. Site plan approval (if applicable), building permit.
22. Number of rental units that tenants in possession of the units wish to purchase as condominium units.
23. Range of rents in the building — list by unit type (bachelor, one bedroom, etc.).
24. Estimates of selling prices for condominium units and whether any government sponsored financing has been sought or obtained.
25. Services proposed or available:
 - water piped, well, or other (describe);
 - sewage treatment — sewers, septic tanks and tile beds, pre-sewer, or other (describe);
 - storm drainage — sewers, open ditches, or other (describe);
 - other servicing problems (describe, with proposed solutions).
26. Access from property to publicly owned and maintained road or other access to the property.
27. If lakefront without road access, types of docking and parking facilities existing and proposed, distance from property, and distance to nearest provincial highway.
28. Brief description of existing use, vegetation, topography and drainage.
29. Effects of the proposal on the environment (traffic, noise, odours, pollution of waters, etc.) and proposed measures to deal with them.
30. Effects on the proposed condominium from the surrounding area (railways, highways, noise, etc.) and proposed measures to deal with them.
31. A sworn declaration or affirmation by the applicant that all statements contained in the application are true and is made with the knowledge that it is of the same force and effect as if made under oath and by virtue of the *Canada Evidence Act*. O. Reg. 434/86, s. 10.

11. An application for a conversion to a co-operative or non-rental residential uses other than condominiums under clause 4 (1) (b) of the Act shall contain the following information:

1. Local municipality and municipal address.

2. Lot number, concession number.
 3. Number of registered plan and date of registration (if applicable).
 4. Any application under the *Planning Act, 1983*, the *Securities Act* or the Act submitted prior to this application and the file number.
 5. Name, address and telephone number of registered owner.
 6. Name, address and telephone number of agent, solicitor or planning consultant.
 7. A plan of survey and the name, address and telephone number of the Ontario Land Surveyor.
 8. Nature of conversion (specify proposed use).
 9. Proposed land use:
 - double or semi-detached, duplex, triplex, single row attached, other multiple attached, apartments, commercial, industrial, other (specify).
 10. Number of existing units in the building specifying the number of rental residential units now occupied and those now vacant and the date of the vacancies.
 11. Number of units proposed (specify, residential, commercial, etc.).
 12. Date of construction of existing building.
 13. Gross floor area.
 14. Number of storeys.
 15. Density proposed (specify units per hectare).
 16. Internal roadways.
 17. Parking provided.
 18. Landscaping and recreational amenities.
 19. Land use designation for property in an approved regional or county official plan or amendment, and number of the amendment (if applicable).
 20. Land use designation for property in an approved local official plan or amendment, and number of the amendment (if any).
 21. Zoning of the property in an approved zoning by-law or zoning order.
 22. Site plan approval (if applicable), building permit.
 23. Number of rental units that tenants in possession of the units wish to purchase.
 24. Estimates of selling prices for units and whether any government sponsored financing has been sought or obtained.
 25. Range of rents in the building — list by unit type (bachelor, one bedroom, etc.).
 26. Services proposed or available:
 - water piped, well, or other (describe);
 - sewage treatment — sewers, septic tanks and tile beds, pre-sewer, or other (describe);
 - storm drainage — sewers, open ditches, or other (describe);
 - other servicing problems (describe, with proposed solutions).
 27. Access from property to publicly owned and maintained road or other access to the property.
 28. If lakefront without road access, types of docking and parking facilities existing and proposed, distance from property, and distance to nearest provincial highway.
 29. Brief description of existing use, vegetation, topography and drainage.
 30. Effects of the proposal on the environment (traffic, noise, odours, pollution of waters, etc.) and proposed measures to deal with them.
 31. Effects on the proposal from the surrounding area (railways, highways, noise, etc.) and proposed measures to deal with them.
 32. A sworn declaration or affirmation by the applicant that all statements contained in the application are true and is made with the knowledge that it is of the same force and effect as if made under oath and by virtue of the *Canada Evidence Act*. O. Reg. 434/86, s. 11.
12. An application for renovation or repair under clause 4 (1) (c) of the Act shall contain the following information:
1. Local municipality and municipal address.
 2. Lot number, concession number.
 3. Name, address and telephone number of registered owner.

4. Name, address and telephone number of agent or solicitor.
 5. Nature of renovation (interior or exterior alterations, additions, changes of occupancy, demolitions, etc., with details).
 6. Reason(s) for renovation or repair.
 7. Date of construction of building and type (combustible, non-combustible).
 8. Gross floor area.
 9. Number of storeys.
 10. Number of existing units in the building, specifying the number of residential rental units now occupied, and those now vacant, and the date(s) of vacancy.
 11. Number of kitchens and bathrooms.
 12. Range of rents in the building (list by unit type (bachelor, one bedroom, etc.)).
 13. Number of units proposed.
 14. Estimates of range of rents following renovation.
 15. A sworn declaration or affirmation by the applicant that all statements contained in the application are true and is made with the knowledge that it is of the same force and effect as if made under oath and by virtue of the *Canada Evidence Act*. O. Reg. 434/86, s. 12.
13. An application under subsection 5 (1) of the Act shall contain the following information:
1. Local municipality and municipal address.
 2. Lot number, concession number, unit number.
 3. Name, address and telephone number of owner of the share or interest or unit.
 4. Name, address and telephone number of tenant occupying unit and relationship to owner.
 5. Name, address and telephone number of agent or solicitor.
 6. Date of original purchase of interest, and purchase price.
 7. Estimated selling price.
 8. A sworn declaration or affirmation by the applicant that all statements contained in the application are true and is made with the knowledge that it is of the same force and effect as if made under oath and by virtue of the *Canada Evidence Act*. O. Reg. 434/86, s. 13.
14. An application under clause 4 (1) (d) of the Act for the severance of any part of a rental residential property shall contain the following information:
1. Local municipality and municipal address.
 2. Lot number, concession number.
 3. Number of registered plan, date of registration and file number of approval authority.
 4. Any prior application made for severance approval of the property, including the previous file number.
 5. Name, address and telephone number of registered owner.
 6. Name, address and telephone number of agent, solicitor or planning consultant.
 7. Name, address and telephone number of Ontario Land Surveyor.
 8. Description of land to be severed and land to be retained.
 9. Any land in the municipality previously severed by the applicant.
 10. Name of grantee(s) and relationship to owner.
 11. Any application for additional consents on the rental residential property or intention to apply for additional consents in the future.
 12. Any application for minor variance or permission to extend or enlarge under section 44 of the *Planning Act, 1983* in relation to any land that is the subject of application.
 13. Proposed land use:
 - double or semi-detached, duplex, triplex, single row attached, other multiple attached, apartments, commercial, industrial, other (specify).
 14. Number of existing units in the rental residential property specifying the number of units used for residential purposes that are occupied or vacant and the date(s) of vacancies.
 15. Date of construction of existing building.
 16. Gross floor area of individual units.
 17. Number of storeys.

18. Density proposed (specify units per hectare).
 19. Internal roadways.
 20. Parking provided.
 21. Landscaping and recreational amenities.
 22. Land use designation for property in an approved regional or county official plan or amendment, and number of the amendment (if applicable).
 23. Land use designation for property in an approved local official plan or amendment, and number of the amendment (if any).
 24. Zoning of the property in an approved zoning by-law or zoning order.
 25. Site plan approval (if applicable) and building permit.
 26. Number of rental units that tenants in possession of the units wish to purchase.
 27. Range of rents in the building — list by unit type (bachelor, one bedroom, etc.).
 28. Estimates of selling prices for individual units and whether any government sponsored financing has been sought or obtained.
 29. Services proposed or available:
 - water piped, well, or other (describe);
 - sewage treatment — sewers, septic tanks and tile beds, presewer, or other (describe);
 - storm drainage — sewers, open ditches, or other (describe);
 - other servicing problems (describe, with proposed solutions).
 30. Access from property to publicly owned and maintained road or other access to the property.
 31. If lakefront without road access, types of docking and parking facilities existing and proposed, distance from property, and distance to nearest provincial highway.
 32. Brief description of existing use, vegetation, topography and drainage.
 33. Effects of the proposal on the environment (traffic, noise, odours, pollution of waters, etc.) and proposed measures to deal with them.
 34. Effects on the property from the surrounding area (railways, highways, noise, etc.) and proposed measures to deal with them.
 35. A sworn declaration or affirmation by the applicant that all statements contained in the application are true and is made with the knowledge that it is of the same force and effect as if made under oath and by virtue of the *Canada Evidence Act*. O. Reg. 434/86, s. 14.
- 15.—(1) The clerk of a municipality shall assign to each application a file number consisting of,
- (a) the letters,
 - (i) "CD" for a condominium conversion,
 - (ii) "SE" for a severance,
 - (iii) "CO" for a co-operative conversion,
 - (iv) "CS" for the sale of a share in a co-operative,
 - (v) "DE" for a demolition, or
 - (vi) "RR" for a renovation or repair;
 - (b) the last two digits of the year in which the application is received; and
 - (c) a number corresponding to the order in which the application is received commencing with "001" except for a share in a co-operative which shall be four digits commencing with "0001".
- (2) A new series of numbers shall be commenced each year. O. Reg. 434/86, s. 15.
- 16.—(1) A notice of an application to be given to the tenant under subsection 7 (2) of the Act shall be in Form 1.
- (2) A copy of the completed notice of application shall be given to every tenant of the rental residential property by posting it up in a conspicuous place on the rental residential property and by,
- (a) sending it by prepaid first class mail; or
 - (b) handing it to an apparently adult person on the tenant's premises. O. Reg. 434/86, s. 16.
- 17.—(1) Notice of the public meeting under subsection 7 (7) of the Act shall be given,
- (a) by publication in a newspaper that is, in the opinion of the clerk of the municipality, of sufficiently general circulation in the area in which the rental residential property is located; and

(b) by prepaid first class mail to every tenant of the rental residential property.

(2) The notice of the public meeting shall be in Form 2. O. Reg. 434/86, s. 17.

18. Where the application is for a conversion to a condominium under clause 4 (1) (b) of the Act, the clerk of the municipality shall, at least fourteen days before the date that the application is to be considered by the council, give notice to each of the following by providing a copy of the application and a request for written comments:

1. To the clerk of the county or regional, metropolitan or district municipality, unless such clerk has advised the clerk of the municipality that the county or regional, metropolitan or district municipality does not wish to receive copies of applications.
2. Where the land that is the subject of the application abuts or has access to a provincial highway, to the regional director of the region of the Ministry of Transportation and Communications and to the district engineer of the district of that Ministry in which the land is situated.
3. Except where municipally-owned and operated water and sanitary sewer facilities are available to the land that is the subject of the application, to a director appointed in respect of Part VIII of the *Environmental Protection Act*.
4. To the Director of the Plans Administration Branch of the Ministry of Municipal Affairs having jurisdiction in the area in which the land that is the subject of the application is situated, unless the Director has advised the clerk in writing that the Director does not wish to receive copies of applications.
5. To any department, ministry or agency of the federal or provincial government, any other municipality and any other local board, commission or person that the council determines should receive notice. O. Reg. 434/86, s. 18.

19. For all applications under the Act, the clerk of the municipality shall, within five days of receipt of the application, give notice to the Director of the Rental Housing Protection Branch of the Ministry of Housing by providing a copy of the application and a request for written comments. O. Reg. 434/86, s. 19.

20. Every written notice of decision sent under the Act shall specify the last date on which a notice of appeal to the Ontario Municipal Board may be filed. O. Reg. 434/86, s. 20.

21. The certificate of approval under subsection 7 (16) of the Act shall be in Form 3. O. Reg. 434/86, s. 21.

Schedule 1

(All cities unless otherwise noted)

Ajax (Town)
 Barrie
 Belleville
 Brampton
 Brantford
 Burlington
 Caledon (Town)
 Cambridge
 Chatham
 Cornwall
 East York (Borough)
 Etobicoke
 Flamborough (Town)
 Gloucester
 Guelph
 Halton Hills (Town)
 Hamilton
 Kanata
 Kingston
 Kingston (Township)
 Kitchener
 London
 Markham (Town)
 Milton (Town)
 Mississauga
 Nepean
 Newcastle (Town)
 Newmarket (Town)
 Niagara Falls

North Bay
North York
Oakville (Town)
Oshawa
Ottawa
Peterborough
Pickering (Town)
Richmond Hill (Town)
Sarnia
Sault Ste. Marie
Scarborough
St. Catharines
St. Thomas
Stoney Creek
Stratford
Sudbury
Thunder Bay
Timmins
Toronto
Vaughan (Town)
Waterloo
Welland
Whitby (Town)
Windsor

Woodstock
York

O. Reg. 434/86, Sched. 1.

Schedule 2

That parcel of land known municipally as Number 295 Dufferin Street, City of Toronto, more particularly described as:

That parcel in the City of Toronto, Municipality of Metropolitan Toronto (formerly in the City of Toronto, in the County of York), composed of part of the Ordnance Reserve according to a plan prepared by Messrs. Dennin & Gossage, Provincial Land Surveyors, dated January 1, 1857, on record in the Department of Interior, at Ottawa, a certified copy of which is duly filed in the Land Registry Office for the Registry Division of Toronto (No. 63) and designated as parts 2, 6 and 7, on a Plan deposited in the said Land Registry Office as No. 63R-3309.

Together with an easement, right and right-in-nature of an easement in, on, over and along those parts of the above-noted Ordnance Reserve designated as Part 9 on the above-noted Reference Plan 63R-3309 for the purposes of vehicular and pedestrian access, egress and/or use over that part of the mutual driveway situate on that land designated as Part 9 on Reference Plan 63R-3309.

Subject to an easement, right and right-in-nature of an easement in, on, over and along those parts of the above-noted Ordnance Reserve designated as Part 6 on Reference Plan 63R-3309 for the purposes of vehicular and pedestrian access, egress and/or use over that part of the mutual driveway situate on that land designated as Part 6 on the Plan in favour of the owners, their successors and assigns of that land composed of part of the Ordnance Reserve designated as parts 3, 4, 8, 9 and 10 on Plan 63R-3309.

O. Reg. 434/86, Sched. 2.

Form 1

Rental Housing Protection Act, 1986

NOTICE OF AN APPLICATION

TAKE NOTICE that application has been made under
(subsection, clause, etc.)
of the *Rental Housing Protection Act, 1986* to the council of the
(name of
..... for the
municipal corporation)

(demolition; conversion to a condominium, co-operative, apartment hotel, etc.; renovation; sale)

of the following property:

Municipality Concession No.

Lot(s) No. Registered Plan No.

Part(s) No. Reference Plan No.

Geographic or Former Township

Name of Street Street No.

Unit(s) No.

.....

.....

Name of Applicant

Dated at this day of , 19 ..

.....

(signature of applicant, solicitor or authorized agent)

O. Reg. 434/86, Form 1.

Form 2

Rental Housing Protection Act, 1986

NOTICE OF MEETING TO CONSIDER AN APPLICATION

TAKE NOTICE that the council of the
(name of municipal corporation)

will hold a public meeting to consider the application of
(name of applicant)

for the
(demolition; conversion to a condominium, co-operative, apartment hotel, etc.; renovation; sale)

of the following property:

Municipality Concession No.

Lot(s) No. Registered Plan No.

Part(s) No. Reference Plan No.

Geographic or Former Township

Name of Street Street No.

Unit(s) No.

.....

.....

1951

Dated on the _____ day of _____, 19 ____

at _____ o'clock (a.m., p.m.)

at _____
(street address)

in _____
(floor, room number)

AND TAKE NOTICE that the application and the report prepared under section 7 of the said Act (if any) will be available for inspection at the office of the clerk of the said municipality until 5.00 p.m. on the day of the meeting.

AND TAKE NOTICE that if you do not attend the meeting, the council may proceed in your absence and you will not be entitled to any further notice in the proceedings.

AND TAKE NOTICE that any person who wishes to receive notice of council's decision should advise the clerk in writing.

O. Reg. 434/86, Form 2.

Form 3

Rental Housing Protection Act, 1986

CERTIFICATE OF APPROVAL

Under section 7 of the *Rental Housing Protection Act, 1986*, (For condominium add: "and section 50 of the *Condominium Act*" OR "and exempted under section 50 of the *Condominium Act*", as applicable; for severance: "and section 52 of the *Planning Act, 1983*"), I certify that the consent of _____
(municipal corporation)

was given on _____ day of _____, 19____, to a _____
(enter demolition, renovation, etc.)

of the following land (set out full description, unit numbers, etc.) _____

Clerk

Name of the Municipal Corporation

Dated at _____ this _____ day of _____, 19 ____

SEAL

HIGHWAY TRAFFIC ACT

O. Reg. 435/86.

Signs.

Made—July 24th, 1986.

Filed—July 24th, 1986.

**REGULATION TO AMEND
REGULATION 486 OF
REVISED REGULATIONS OF
ONTARIO, 1980
MADE UNDER THE
HIGHWAY TRAFFIC ACT**

1. Clauses 26 (1) (b) and (c) of Regulation 486 of Revised Regulations of Ontario, 1980, as remade by section 7 of Ontario Regulation 168/86, are revoked and the following substituted therefor:

- (b) bear the words "school bus loading zone" in black letters not less than 4 centimetres in height on a white retro-reflective background; and
- (c) bear a single headed or double headed arrow in black not less than 5.5 centimetres in height,

(9132)

33

**ONTARIO HIGHWAY TRANSPORT
BOARD ACT**

O. Reg. 436/86.

Rules of Procedure.

Made—July 24th, 1986.

Filed—July 24th, 1986.

**REGULATION TO AMEND
REGULATION 716 OF
REVISED REGULATIONS OF
ONTARIO, 1980
MADE UNDER THE
ONTARIO HIGHWAY TRANSPORT
BOARD ACT**

1. Section 18 of Regulation 716 of Revised Regulations of Ontario, 1980, as made by section 2 of Ontario Regulation 170/86, is amended by adding thereto the following subsection:

(5) Where both parties agree on the terms of an application for a rewritten certificate made under section 10b of the *Public Commercial Vehicles Act*, the Board may dispose of the application summarily.
O. Reg. 436/86, s. 1.

(9133)

33

**PUBLIC COMMERCIAL VEHICLES
ACT**

O. Reg. 437/86.

Section 10b-Certificates.

Made—July 24th, 1986.

Filed—July 24th, 1986.

**REGULATION TO AMEND
ONTARIO REGULATION 172/86
MADE UNDER THE
PUBLIC COMMERCIAL VEHICLES
ACT**

1. Form 1 of Ontario Regulation 172/86 is revoked and the following substituted therefor:

Form 1

Public Commercial Vehicles Act

**CERTIFICATE OF PUBLIC NECESSITY AND
CONVENIENCE**

Issued under Section 10b

Certificate No.

CERTIFICATE

Upon the application of

of, holder of Operating Licence(s)

No. under the *Public Commercial Vehicles Act* under subsection 10b (1) of the Act.

IT IS HEREBY CERTIFIED as necessary and convenient in the public interest that an operating licence

be granted to the said for the following class(es) of carriage in the following terms:

GENERAL FREIGHT

For the carriage of goods to or from/between/ within (geographic area).

Restrictions:

- 1. Provided that no individual parcel exceeds
..... kilograms.

2. Provided that the total shipment weight of parcels shipped from any one consignor to any one consignee shall not exceed kilograms in any one day.
3. Provided that the carriage of the goods by the licensee originates and/or terminates at the named airport(s).
4. Provided that the goods of only one consignor may be carried on a continuous trip to one or more consignees, or of one or more consignors to one consignee, to or from the geographic areas named in the licence and provided further that the licensee may simultaneously carry such other goods as are permitted by the licence.

TANK VEHICLE

For the carriage of goods in tank vehicles only to or from/between/within (geographic areas).

For the carriage of (commodity) in tank vehicles only to or from/between/within (geographic areas).

For the carriage of goods in tank vehicles only for and on behalf of (named consignor or consignee) to or from/between/within (geographic areas).

HOUSEHOLD GOODS

For the carriage of household goods to or from/ between/within (geographic area).

Restriction: Provided that the licensee has a place or places of business only at (geographic areas).

BULK

For the carriage of bulk goods in dump or hopper equipment only to or from/between/within (geographic areas).

For the carriage of bulk goods in dump or hopper equipment only for and on behalf of (named consignor or consignee) to or from/between/within (geographic areas).

HEAVY AND SPECIALIZED

For the carriage of dimensional goods on specialized equipment only to or from/between/ within (geographic areas).

For the carriage of dimensional goods on specialized equipment only for and on behalf of (named consignor or consignee) to or from/ between/within (geographic areas).

NAMED COMMODITY

For the carriage of (named commodity, new vehicles or farm supplies) to or from/between/within (geographic areas).

For the carriage of (named commodity, new vehicles or farm supplies) for and on behalf of (named consignor or consignee).

For the carriage of goods for and on behalf of (named consignor or consignee) to or from/ between/within (geographic areas).

For the carriage of road construction materials between (geographic areas) provided no more than commercial motor vehicles be so operated.

For the carriage of 01 411 15 stocker or feeder cattle such as bulls, cows, heifers, oxen or steers, provided that the cattle be transported only during the months of September, October, November or December between points in Ontario.

INTERCHANGE

For the carriage of goods under the authority of the operating licence(s) held by the following affiliated corporation(s):

.....

(Include only the classes of licences and restrictions thereunder which are appropriate.)

(Where the form provides for the insertion of "to or from/between/within" or "and/or" strike out phrases which are not appropriate.)

Dated

.....

Member(s)

NOTE: Except as otherwise specifically indicated, a STCC number referred to embraces all articles assigned additional digits listed thereunder, e.g. Code Number 28 4 embraces also articles covered by numbers with a greater number of digits listed thereunder, beginning with Code Number 28 4.

Abbreviations have the meanings attributed to them in the STCC.

HEALTH INSURANCE ACT**O. Reg. 438/86.**

General.

Made—July 24th, 1986.

Filed—July 25th, 1986.

**REGULATION TO AMEND
REGULATION 452 OF
REVISED REGULATIONS OF
ONTARIO, 1980
MADE UNDER THE
HEALTH INSURANCE ACT**

1. Clauses 37 (9) (h), (i), (j) and (k) of Regulation 452 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 408/85, are revoked and the following substituted therefor:

- (h) by a person who has one dependant, where the aggregate estimated incomes of the person and the person's dependant does not exceed \$2,078;
- (i) by a person who has two dependants, where the aggregate estimated incomes of the person and the person's dependants does not exceed \$2,375;
- (j) by a person who has three dependants, where the aggregate estimated incomes of the person and the person's dependants does not exceed \$2,645;
- (k) by a person who has four or more dependants, where the aggregate estimated incomes of the person and the person's dependants does not exceed \$2,887. O. Reg. 438/86, s. 1.

2.—(1) Subsections 43 (5) and (6) of the said Regulation, as remade by section 2 of Ontario Regulation 408/85, are revoked and the following substituted therefor:

(5) The co-payment that shall be made to the licensee of a nursing home in which an extended care unit is located in order to qualify a person to receive extended care services therein as insured services is the monthly co-payment set out in Column 2 of Table 1, 1A or 1B opposite the period the extended care services were received in Column 1 of Table 1, 1A or 1B, respectively, for each full month that the person receives the extended care services.

(6) Except where extended care services are provided to a person on the day the person is discharged from an extended care unit, the co-payment that shall be made to the licensee of a nursing home in which an

extended care unit is located in order to qualify a person to receive extended care services therein as insured services is the daily co-payment set out in Column 3 of Table 1, 1A or 1B opposite the period the extended care services were received in Column 1 of Table 1, 1A or 1B, respectively, where the extended care services were received by the person for less than a month, or for a day or number of days in excess of a full month, for each day that the person receives the extended care services. O. Reg. 438/86, s. 2 (1).

(2) Section 43 of the said Regulation, as amended by section 1 of Ontario Regulation 794/81, section 1 of Ontario Regulation 256/82, section 1 of Ontario Regulation 209/84, section 1 of Ontario Regulation 274/85 and section 2 of Ontario Regulation 408/85, is further amended by adding thereto the following subsections:

(20) The General Manager shall make payment to the licensee of a nursing home for the provision therein of extended care services that are insured services, where the extended care services were provided to an insured person during a period set out in Column 1 of Table 1B,

- (a) on or before the end of the month in which the insured person attained the age of eighteen years, in the amount set out opposite thereto in Column 6 of Table 1B; or
- (b) after the end of the month in which the insured person attained the age of eighteen years, in the amount set out opposite thereto in Column 4 of Table 1B,

for each full month that the extended care services were received by the insured person.

(21) The General Manager shall make payment to the licensee of a nursing home for the provision of extended care services that are insured services other than extended care services that are provided to a person on the day that the person is discharged from an extended care unit, where the extended care services were provided to an insured person during a period set out in Column 1 of Table 1B and where the extended care services were provided for less than a month, or for a day or number of days in excess of a full month,

- (a) on or before the end of the month in which the insured person attained the age of eighteen years, in the amount set out opposite thereto in Column 7 of Table 1B; or
- (b) after the end of the month in which the insured person attained the age of eighteen years, in the amount set out opposite thereto in Column 5 of Table 1B,

for each day that the extended care services were received by the insured person. O. Reg. 438/86, s. 2 (2).

3. Item 6 of Table 1A of the said Regulation, as made by section 1 of Ontario Regulation 241/86, is revoked and the following substituted therefor:

6. On or after the 1st day of May, 1986, but before the 1st day of August, 1986.....	602.02	19.79	893.23	29.37	1,495.25	49.16	885.32	29.11	1,487.34	48.90
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4. The said Regulation is amended by adding thereto the following Table:

TABLE 1B

	COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5	COLUMN 6	COLUMN 7
Item	Effective Period	Monthly Co-payment	Daily Co-payment	Monthly Payment	Daily Payment	Monthly Total	Daily Total
1. On or after the 1st day of August, 1986		\$608.96	\$20.02	\$878.38	\$28.88	\$1,487.34	\$48.90

O. Reg. 438/86, s. 4.

5. Items 7w, 13w, 19w, 25w, 31w and 60 of Table 2 of the said Regulation, as made by section 2 of Ontario Regulation 241/86, are revoked and the following substituted therefor:

7w. On or after the 1st day of May, 1986, but before the 1st day of August, 1986.	Person with no dependants— maximum estimated income	Estimated income less \$77.00, divided by 30.4
7x. On or after the 1st day of August, 1986.	Person with no dependants— maximum estimated income	Estimated income less \$77.00, divided by 30.4
13w. On or after the 1st day of May, 1986, but before the 1st day of August, 1986.	Person with one dependant— maximum aggregate estimated incomes	Aggregate estimated incomes less \$2,000.00, divided by 3

13x.	On or after the 1st day of August, 1986.	Person with one dependant— maximum aggregate estimated incomes \$3,904.00	Aggregate estimated incomes less \$2,078.00, divided by 3	Aggregate estimated incomes less \$2,078.00, divided by 91.2
19w.	On or after the 1st day of May, 1986, but before the 1st day of August, 1986.	Person with two dependants— maximum aggregate estimated incomes \$4,092.00	Aggregate estimated incomes less \$2,286.00, divided by 3	Aggregate estimated incomes less \$2,286.00, divided by 91.2
19x.	On or after the 1st day of August, 1986.	Person with two dependants— maximum aggregate estimated incomes \$4,201.00	Aggregate estimated incomes less \$2,375.00, divided by 3	Aggregate estimated incomes less \$2,375.00, divided by 91.2
25w.	On or after the 1st day of May, 1986, but before the 1st day of August, 1986.	Person with three dependants— maximum aggregate estimated incomes \$4,352.00	Aggregate estimated incomes less \$2,546.00, divided by 3	Aggregate estimated incomes less \$2,546.00, divided by 91.2
25x.	On or after the 1st day of August, 1986.	Person with three dependants— maximum aggregate estimated incomes \$4,471.00	Aggregate estimated incomes less \$2,645.00, divided by 3	Aggregate estimated incomes less \$2,645.00, divided by 91.2
31w.	On or after the 1st day of May, 1986, but before the 1st day of August, 1986.	Person with four or more dependants—maximum aggregate estimated incomes \$4,585.00	Aggregate estimated incomes less \$2,779.00, divided by 3	Aggregate estimated incomes less \$2,779.00, divided by 91.2
31x.	On or after the 1st day of August, 1986.	Person with four or more dependants—maximum aggregate estimated incomes \$4,713.00	Aggregate estimated incomes less \$2,887.00, divided by 3	Aggregate estimated incomes less \$2,887.00, divided by 91.2
60.	On or after the 1st day of May, 1986, but before the 1st day of August, 1986.	Person not referred to in Items 1-31w	\$602.02	\$19.79
61.	On or after the 1st day of August, 1986.	Person not referred to in Items 1-31x	\$608.96	\$20.02

6. Section 1 of this Regulation comes into force on the 1st day of August, 1986.

NURSING HOMES ACT

O. Reg. 439/86.
 General.
 Made—July 24th, 1986.
 Filed—July 25th, 1986.

REGULATION TO AMEND
 REGULATION 690 OF REVISED REGULATIONS OF ONTARIO, 1980
 MADE UNDER THE
 NURSING HOMES ACT

1. Item 24 of Table 1 of Regulation 690 of Revised Regulations of Ontario, 1980, as made by section 1 of Ontario Regulation 240/86, is revoked and the following substituted therefor:

24.	On or after the 1st day of May, 1986, but before the 1st day of August, 1986.	\$602.02	\$19.79
25.	On or after the 1st day of August, 1986.	\$608.96	\$20.02

(9137)

33

LAND REGISTRATION REFORM ACT,
 1984

O. Reg. 440/86.
 General.
 Made—July 24th, 1986.
 Filed—July 25th, 1986.

REGULATION TO AMEND
 ONTARIO REGULATION 580/84
 MADE UNDER THE
 LAND REGISTRATION REFORM
 ACT, 1984

1.—(1) Subsection 1 (2) of Ontario Regulation 580/84, as amended by section 1 of Ontario Regulation 452/85 and section 2 of Ontario Regulation 163/86, is further amended by adding thereto the following paragraph:

5. All that part of the City of Woodstock and the Township of Blandford-Blenheim (formerly the Township of Blandford) in the County of Oxford bounded on the north by the southerly limit of Devonshire Avenue, on the east by the westerly limit of Oxford County Road 4, on the south by the southerly limit of Dundas Street and on the west by the westerly limit of Huron Street.

(2) The said subsection 1 (2) is further amended by adding thereto the following paragraph:

6. All that part of the City of Woodstock in the County of Oxford bounded on the east by the westerly limit of Huron Street, on the south by the southerly limit of Dundas Street, on the west by the westerly limit of Tecumseh Street and its continuation southerly along the westerly limit of the Woodstock-London Branch of the Canadian Pacific Railway (West Branch) and on the north by the southerly limit of Devonshire Avenue and the westerly limit of Vansittart Avenue between the said southerly limit of Devonshire Avenue and the said westerly limit of Tecumseh Street.

(3) The said subsection 1 (2) is further amended by adding thereto the following paragraph:

7. All those parts of the City of Woodstock, the Town of Blandford (now in the Township of Blandford-Blenheim), the Township of East Zorra (now in the Township of East Zorra-Tavistock), the Township of North Oxford (now in the townships of Zorra and East Zorra-Tavistock) and the Township of West Oxford (now in the Township of South-West Oxford) all in the County of Oxford, which may be described as follows:

Commencing at the intersection of the southerly limit of the road allowance between concessions 2 and 3 in the Township of West Oxford with the westerly limit of the road allowance between the townships of East and West Oxford;

Thence northerly along the last mentioned westerly limit and its continuation along the westerly limit of Mill Street to the southerly limit of Dundas Street;

Thence westerly along the southerly limit of Dundas Street to the westerly limit of the Woodstock — London Branch of the Canadian Pacific Railway (the West Branch);

Thence northerly along the last mentioned westerly limit and continuing along the westerly limit of Tecumseh Street to the westerly limit of Vansittart Avenue;

Thence southerly along the westerly limit of Vansittart Avenue to the southerly limit of Devonshire Avenue;

Thence easterly along the southerly limit of Devonshire Avenue to the westerly limit of Oxford County Road 4;

Thence northerly along the last mentioned westerly limit to the southerly limit of Oxford County Road 17;

Thence westerly along the last mentioned southerly limit to the westerly limit of the road allowance between the townships of East and West Zorra;

Thence southerly along the last mentioned westerly limit to the southerly limit of Highway 2;

Thence westerly along the southerly limit of Highway 2 to the westerly limit of the road allowance between lots 24 and 25, Concession 1 in the said Township of North Oxford;

Thence southerly along the last mentioned westerly limit to the southerly limit of Queen Street;

Thence westerly along the southerly limit of Queen Street to the westerly limit of Martin Street;

Thence southerly along the westerly limit of Martin Street and the westerly limit of Zorra Street to the southerly limit of Main Street (Oxford County Road 9);

Thence easterly along the last mentioned southerly limit to the westerly limit of the road allowance between lots 6 and 7 Broken Front Concession in the said Township of West Oxford (as widened);

Thence southerly along the last mentioned westerly limit and its continuation through Concession 1 to the southerly limit of the road allowance between concessions 1 and 2 in the said Township of West Oxford;

Thence easterly along the last mentioned southerly limit to the westerly limit of Norwich Road;

Thence southerly along the westerly limit of Norwich Road to the southerly limit of the road allowance between concessions 2 and 3 in the said Township of West Oxford;

Thence easterly along the last mentioned southerly limit to the point of commencement.

2.—(1) Subsection 1 (1) comes into force on the 28th day of July, 1986.

(2) Subsection 1 (2) comes into force on the 8th day of September, 1986.

(3) Subsection 1 (3) comes into force on the 27th day of October, 1986.

(9138)

33

GENERAL WELFARE ASSISTANCE ACT

O. Reg. 441/86.
General.
Made—July 24th, 1986.
Filed—July 25th, 1986.

REGULATION TO AMEND
REGULATION 441 OF REVISED REGULATIONS OF ONTARIO, 1980
MADE UNDER THE
GENERAL WELFARE ASSISTANCE ACT

1. Item 15 of Schedule E to Regulation 441 of Revised Regulations of Ontario, 1980, as made by section 1 of Ontario Regulation 244/86, is revoked and the following substituted therefor:
- | | | | | | |
|-----|---|-------|-------|-------|-------|
| 15. | From and including the 1st day of May, 1986, up to and including the 31st day of July, 1986 | 19.79 | 48.48 | 77.00 | 41.25 |
| 16. | From and including the 1st day of August, 1986 | 20.02 | 48.48 | 77.00 | 41.25 |
- (8690)
- 33

CHARITABLE INSTITUTIONS ACT

O. Reg. 442/86.
General.
Made—July 24th 1986.
Filed—July 25th, 1986.

REGULATION TO AMEND
REGULATION 95 OF REVISED REGULATIONS OF ONTARIO, 1980
MADE UNDER THE
CHARITABLE INSTITUTIONS ACT

1. Item 34 of Table 1 of Regulation 95 of Revised Regulations of Ontario, 1980, as made by section 1 of Ontario Regulation 246/86, is revoked and the following substituted therefor:
- | | | | | | | |
|-----|---|--------|-------|-------|-------|-------|
| 34. | From and including the 1st day of May, 1986, up to and including the 31st day of July, 1986 | 19.79 | 48.48 | 34.15 | 77.00 | 33.50 |
| 35. | From and including the 1st day of August, 1986 | *20.02 | 48.48 | 34.38 | 77.00 | 33.50 |
- (9140)
- 33

HOMES FOR THE AGED AND REST HOMES ACT

O. Reg. 443/86.

General.

Made—July 24th, 1986.

Filed—July 25th, 1986.

**REGULATION TO AMEND
REGULATION 502 OF REVISED REGULATIONS OF ONTARIO, 1980
MADE UNDER THE
HOMES FOR THE AGED AND REST HOMES ACT**

1. Item 34 of Table 1 of Regulation 502 of Revised Regulations of Ontario, 1980, as made by section 1 of Ontario Regulation 247/86, is revoked and the following substituted therefor:

34.	From and including the 1st day of May, 1986, up to and including the 31st day of July, 1986.....	19.79	46.48	34.15	77.00
35.	From and including the 1st day of August, 1986.....	20.02	46.48	34.38	77.00

(9141)

33

FAMILY BENEFITS ACT

O. Reg. 444/86.

General.

Made—July 24th, 1986.

Filed—July 25th, 1986.

**REGULATION TO AMEND
REGULATION 318 OF
REVISED REGULATIONS OF
ONTARIO, 1980
MADE UNDER THE
FAMILY BENEFITS ACT**

1. Subclause 12 (5) (e) (i) of Regulation 318 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 245/86, is revoked and the following substituted therefor:

(i) \$20.02 a day, or

2. This Regulation comes into force on the 1st day of August, 1986.

(9142)

33

PLANNING ACT, 1983

O. Reg. 445/86.

Restricted Areas—District of Algoma,
Sault Ste. Marie North Planning
Area.

Made—July 24th, 1986.

Filed—July 25th, 1986.

**REGULATION TO AMEND
ONTARIO REGULATION 279/80
MADE UNDER THE
PLANNING ACT, 1983**

1. Ontario Regulation 279/80 is amended by adding thereto the following sections:

88.—(1) Notwithstanding that the land described in subsection (2) is shown on a map referred to in clause 4 (b) as being in a Rural Zone, it shall be deemed to be in a General Commercial Zone to which Part VI applies.

(2) Subsection (1) applies to that parcel of land in the geographic Township of Hodgins in the District of Algoma described as part of Lot 8 in Concession VI, AR-516, Parcel 5168 AWS, and part of Lot 7 in Concession VI, AR-516, Parcel 9547 AWS, in the Land Registry Office for the Land Titles Division of Algoma (No. 1). O. Reg. 445/86, s. 1, *part*.

89.—(1) Notwithstanding that the land described in subsection (2) is shown on a map referred to in clause 4 (b) as being in a Rural Residential Zone, it shall be deemed to be in a General Industrial Zone to which Part VIII applies, and is subject to the following requirements:

Minimum lot frontage	30 metres
Minimum lot area	.6 hectares
Maximum lot coverage	35 per cent
Minimum front yard	67 metres
Minimum rear yard	18 metres
Minimum east side yard	4.5 metres
Minimum west side yard	13.5 metres

(2) Subsection (1) applies to the east half of the northeast quarter of Section 1, in the geographic Township of Fenwick in the District of Algoma, described as Lot 80, Registrar's Compiled Plan No. H-807 in the Land Registry Office for the Land Titles Division of Algoma (No. 1). O. Reg. 445/86, s. 1, *part*.

PAULINE MORRIS

Director

Plans Administration Branch

North and East

Ministry of Municipal Affairs

Dated at Toronto, this 24th day of July, 1986.

(9143)

33

CONSERVATION AUTHORITIES ACT

O. Reg. 446/86.

Fill, Construction and Alteration to

Waterways—Kettle Creek.

Made—April 16th, 1986.

Approved—July 24th, 1986.

Filed—July 28th, 1986.

REGULATION MADE UNDER THE CONSERVATION AUTHORITIES ACT

FILL, CONSTRUCTION AND ALTERATION TO WATERWAYS—KETTLE CREEK

INTERPRETATION

1. In this Regulation,

“Authority” means the Kettle Creek Conservation Authority;

“drainage area” means, for a point, the area that contributes runoff to that point;

“fill” means earth, sand, gravel, building materials, storage materials, rubble, rubbish, garbage or any other material whether similar to or different from any of the aforementioned materials, whether originating on the site or elsewhere, used or capable of being used to raise, lower or in any way affect the contours of the ground;

“fill line” means any line designated as such on the maps referred to in the Schedules;

“mm” means millimetres;

“regional storm” means a storm producing in a forty-eight hour period in a drainage area of,

(a) twenty-five square kilometres or less, a rainfall that has the distribution set out in Table 1, or

(b) more than twenty-five square kilometres, a rainfall such that the number of millimetres of rain referred to in each case in Table 1 shall be modified by the percentage amount shown in Column 2 of Table 2 opposite the size of the drainage area set out opposite thereto in Column 1 of Table 2.

TABLE 1

73 mm of rain in the first 36 hours
6 mm of rain in the 37th hour
4 mm of rain in the 38th hour
6 mm of rain in the 39th hour
13 mm of rain in the 40th hour
17 mm of rain in the 41st hour
13 mm of rain in the 42nd hour
23 mm of rain in the 43rd hour
13 mm of rain in the 44th hour
13 mm of rain in the 45th hour
53 mm of rain in the 46th hour
38 mm of rain in the 47th hour
13 mm of rain in the 48th hour

TABLE 2

COLUMN 1	COLUMN 2
Drainage Area (km ²)	Percentage
26 to 45 both inclusive	99.2
46 to 65 both inclusive	98.2

TABLE 2—Continued

COLUMN 1	COLUMN 2
Drainage Area (km ²)	Percentage
66 to 90 both inclusive	97.1
91 to 115 both inclusive	96.3
116 to 140 both inclusive	95.4
141 to 165 both inclusive	94.8
166 to 195 both inclusive	94.2
196 to 220 both inclusive	93.5
221 to 245 both inclusive	92.7
246 to 270 both inclusive	92.0
271 to 450 both inclusive	89.4
451 to 575 both inclusive	86.7
576 to 700 both inclusive	84.0
701 to 850 both inclusive	82.4
851 to 1000 both inclusive	80.8
1001 to 1200 both inclusive	79.3
1201 to 1500 both inclusive	76.6
1501 to 1700 both inclusive	74.4
1701 to 2000 both inclusive	73.3
2001 to 2200 both inclusive	71.7
2201 to 2500 both inclusive	70.2
2501 to 2700 both inclusive	69.0
2701 to 4500 both inclusive	64.4
4501 to 6000 both inclusive	61.4
6001 to 7000 both inclusive	58.9
7001 to 8000 both inclusive	57.4

O. Reg. 446/86, s. 1.

2. The areas described in the schedules are areas in which, in the opinion of the Authority, the control of flooding or pollution or the conservation of land may be affected by the placing or dumping of fill. O. Reg. 446/86, s. 2.

3. Subject to section 4, no person shall,

- (a) construct any building or structure or permit any building or structure to be constructed in or on a pond or swamp or in any area susceptible to flooding during a regional storm;
 - (b) place or dump fill, or permit fill to be placed or dumped, permanently or temporarily, in the areas described in the Schedules; or
 - (c) straighten, change, divert or interfere in any way with the existing channel of a river, lake, creek, stream or watercourse.
- O. Reg. 446/86, s. 3.

4. Subject to the *Ontario Water Resources Act* or to any private interest, the Authority may permit in writing the construction of any building or structure, or the placing or dumping of fill, or the straightening, changing, diverting or interfering with the existing channel of a river, lake, creek, stream or watercourse, to which section 3 applies if, in the opinion of the Authority, the site of the building or structure or the placing or dumping of fill and the method of construction or placing or dumping of fill or the straightening, changing, diverting or interfering with the existing channel will not affect the control of the flooding or pollution or the conservation of land. O. Reg. 446/86, s. 4.

5. No person shall commence to construct any building or structure, or dump or place fill, or straighten, change, divert or interfere with the existing channel of a river, lake, creek, stream or watercourse in any area to which section 3 applies before permission to do so has been obtained under section 4. O. Reg. 446/86, s. 5.

6.—(1) A signed application for permission to construct a building or structure shall be filed with the Authority and shall include four copies of,

- (a) a plan of the property showing the proposed location of the building or structure, its elevation and the proposed final grade plan;
- (b) a complete description of the type of building or structure to be constructed, including drainage details and the method of construction;
- (c) a statement of the dates between which the construction will be carried out; and
- (d) a statement of the proposed use of the building or structure following completion of the construction.

(2) A signed application for permission to place or dump fill shall be filed with the Authority and shall include four copies of,

- (a) a plan of the property on which the fill is to be placed, showing the proposed location of filling, the depth to which it is proposed to fill and the proposed final grade of the land when filling is completed;
- (b) a complete description of the type of fill proposed to be placed or dumped and the method of placing or dumping the fill;
- (c) a statement of the dates between which the placing or dumping will be carried out; and
- (d) a statement of the proposed use of the land following completion of placing or dumping.

(3) A signed application for permission to straighten, change, divert or interfere in any way with

the existing channel of a river, lake, creek, stream or watercourse shall be filed with the Authority and shall include four copies of,

- (a) a plan on which shall be shown in plan view and cross section the details of such straightening, changing, diversion or interference;
- (b) a description of the protective measures to be undertaken and the method to be used to carry out such straightening, changing, diversion or interference;
- (c) a statement of the dates between which the straightening, changing, diverting or interfering will be carried out; and

(d) a statement of the purpose of the proposed work. O. Reg. 446/86, s. 6.

7. The Authority may, at any time, withdraw any permission given under section 4 if, in the opinion of the Authority, the representations contained in the application for permission are not carried out. O. Reg. 446/86, s. 7.

8. The Authority may appoint, from time to time, officers to enforce this Regulation. O. Reg. 446/86, s. 8.

9. Regulation 166 of Revised Regulations of Ontario, 1980 is revoked.

Schedule 1

That portion of the area under the jurisdiction of the Authority within the fill lines as outlined by a solid line on maps filed in the Regional Office of the Ministry of Natural Resources at London as numbers KC1-1, KC1-2, KC1-4, KC1-5, KC1-7, KC1-8, KC1-10 to KC1-13, both inclusive, and KC1-15 to KC1-17, both inclusive, dated 1970 as follows:

1. In the eastern portion of the Township of Southwold, County of Elgin, and being composed of part or all of the following blocks or lots as shown on Registered Plans:

Registered Plan	Lot
34	1 — 9 both inclusive
259	12 — 25 both inclusive
274	21 — 40 both inclusive

Concession	Lot
Range 1 East River Road	8 9
Range 2 East River Road	7 — 10 both inclusive
North Talbot Road East	42 44 45
North Talbot Road East Gore	B — D A
Gore	B
South Talbot Road East	40 — 45 both inclusive
E	1

2. In the City of St. Thomas, County of Elgin, and being composed of part or all of the following blocks or lots as shown on Registered Plans:

Registered Plan	Block	Lot
1		1 — 16 both inclusive D — G both inclusive K — S both inclusive
3	L PS	
9		1 — 9 both inclusive
10		1 — 6 both inclusive
11		1 — 11 both inclusive
15		1 — 4 both inclusive 8 — 14 both inclusive
	18	3, 4
	24	1 2 4
19		67 69 — 73 both inclusive 99
23		1 — 5 both inclusive 11 — 15 both inclusive A — C both inclusive
	H	
37	J. Lindsay	
43		99 102 103
46		4 — 6 both inclusive
61		1 2
64		1 9 — 12 both inclusive 18 — 27 both inclusive Cherry St. unopened Second Ave. closed 6
65		
	5	1 — 16 both inclusive
	6	1 — 6 both inclusive
	6	11 — 16 both inclusive
	13	10 — 13 both inclusive
	14	1 — 4 both inclusive
	14	14 — 16 both inclusive
	15	1 and 2
	16	1 — 16 both inclusive
	21	10 — 18 both inclusive

Registered Plan	Block	Lot
	22	3 — 7 both inclusive
	22	17
	22	18
	24	2 — 6 both inclusive
	24	8 — 16 both inclusive
	25	5 — 15 both inclusive
	26	1 — 7 both inclusive
	26	11 — 18 both inclusive
	27	6 — 13 both inclusive
	30	7 — 11 both inclusive
	37	1 — 18 both inclusive
	38	1 — 4 both inclusive
	39	1 — 3 both inclusive
	40	1 — 9 both inclusive
70		31 — 46 both inclusive
		58 — 70 both inclusive
85		86, 88, 89
		97 — 104 both inclusive
86		133 — 146 both inclusive
		154 — 159 both inclusive
		172 — 177 both inclusive
		192 — 194 both inclusive
		Pt. Arkell St. closed
110	B	
	D — G both inclusive	
	K — N both inclusive	
	S	
	T	
122		1 — 10 both inclusive
	A	1 — 10 both inclusive
	B	6, 7
	D	7, 8
	F	
125		105 — 120 both inclusive
		146
		147
		178 — 187 both inclusive
126		10 — 19 both inclusive
130		1 — 4 both inclusive
	B	3, 4
134		7, 8
137	12	1 — 10 both inclusive
	13	1
140		6 — 8 both inclusive
	B	7 — 15 both inclusive
	F	1 — 4 both inclusive

Registered Plan	Block	Lot
170	A	10 — 13 both inclusive
174		Park Lot F
183		15, 16
184		16
		17
		19 — 27 both inclusive
		29 — 36 both inclusive
188		5 — 20 both inclusive
190		2 — 13 both inclusive
		16 — 19 both inclusive
192		1 — 19 both inclusive
		23 — 33 both inclusive
195		15, 16
196		14 — 19 both inclusive
		23 — 26 both inclusive
		A
203		104 — 106 both inclusive
		111 — 124 both inclusive
211		6 — 10 both inclusive
216		10 — 36 both inclusive
218		1, 2
		5
		21
232		1 — 9 both inclusive
241		1
242		17
		19
		102 — 104 both inclusive
		116 — 129 both inclusive
		155
		157 — 161 both inclusive
		179 — 182 both inclusive
		204
		205
		244
		251 — 259 both inclusive
		266 — 270 both inclusive
243		10 — 16 both inclusive
249		13 — 15 both inclusive
254		15
		75 — 80 both inclusive
		83 — 92 both inclusive
		1
		56 — 61 both inclusive
265		2 — 6 both inclusive

Registered Plan	Block	Lot
269		15
		16
		33
273		18 — 24 both inclusive
282		13 — 17 both inclusive
	B	
	B	18
284	B	
293		13
		15
		16
		18
		19
	A	
297		1 — 10 both inclusive
		13 — 16 both inclusive
298		56 — 58 both inclusive
		60 — 63 both inclusive
		168 — 170 both inclusive
		191 — 196 both inclusive
		200 — 202 both inclusive
		206 — 208 both inclusive
		245
		246
	A — C both inclusive	
	K	
	L	
310		6
		7
312		10 — 22 both inclusive
		24
		25
		35 — 48 both inclusive
	A	
M 9		1 — 9 both inclusive
M 10		9
	C	

In the City of St. Thomas, (formerly in the Township of Yarmouth), County of Elgin, and being composed of part or all of the following lots:

Concession	Lot
7	3
	5, 6
8	1
	2

Concession	Lot
9	4
	1 — 4 both inclusive
	6
	pt. unsubst. lot
Range South Edgeware Road	3 — 7 both inclusive
South Talbot Road	45
Range 2 East River Road	10

3. In the western portion of the Township of Yarmouth, County of Elgin, and being composed of part or all of the following blocks or lots as shown on Registered Plans:

Registered Plan	Block	Lot
28	A	1, 2
	A	4 — 6 both inclusive
	B	1 — 4 both inclusive
	C	
	D	1 — 3 both inclusive
	E	
	E	1
	F	
	G	1 — 4 both inclusive
	H	2
	J	1, 2
	J	5
	K	1 — 3 both inclusive
144		A
	A	
	B	9 — 22 both inclusive
174	E	
	G	
	H	
		Park lot E
		Park lot F
		Park lot G
		Park lot H
		Park lot J
		Park lot K
219		11 — 14 both inclusive
222		25 — 42 both inclusive
230		1 — 6 both inclusive

Registered Plan	Block	Lot
237		21
		22
		47
		48
256		25
		26
		46
		62 — 69 both inclusive
		71
		72
263		1
		8
275		39 — 42 both inclusive

In the western portion of the Township of Yarmouth, County of Elgin, and being composed of part or all of the following lots:

Concession	Lot
6	1 — 4 both inclusive
7	1 — 7 both inclusive
	1, 2
	12
	13
9	1 — 6 both inclusive
	12
	13
10	3 — 9 both inclusive
Range 1 North Edgeware Road	1 — 8 both inclusive
Range 1 South Edgeware Road	1 — 3 both inclusive
Range 2 North Edgeware Road	1
	4 — 8 both inclusive

O. Reg. 446/86, Sched. 1.

Schedule 2

That portion of the area under the jurisdiction of the Authority within the fill lines as outlined by a dashed line on a map filed in the Regional Office of the Ministry of Natural Resources at London as number KC2-1 dated December 12, 1971 as follows:

1. In the Village of Belmont, County of Elgin, and being composed of part or all of the following blocks or lots as shown on Registered Plans:

Registered Plan	Block	Lot
231	McKeller	5
		7
		8
		10 — 15 both inclusive
		17 — 21 both inclusive
		32
291		9
292		
319		1 — 3 both inclusive
		Park lots 2 — 4 both inclusive
M24	Clines A B C E	
M33	A C	12 — 29 both inclusive
		34 — 36 both inclusive
		5 — 11 both inclusive
		15
		16
		36 — 38 both inclusive

2. In the Township of Yarmouth, County of Elgin, and being composed of part or all of the following lots:

Concession		Lot
15		15

3. In the Township of North Dorchester, County of Middlesex, and being composed of part or all of the following lots:

Concession		Lot
6		23, 24

4. In the Township of Westminster, County of Middlesex, and being composed of part or all of the following lots:

Concession		Lot
7		1 — 3 both inclusive

Schedule 3

That portion of the area under the jurisdiction of the Authority within the fill lines as outlined by a dashed line on maps filed in the Regional Office of the Ministry of Natural Resources at London as numbers KC3-1, dated 1974 and KC3-2, dated November 8, 1970 as follows:

1. In the Village of Port Stanley, County of Elgin, and being composed of part or all of the following blocks or lots as shown on Registered Plans:

Registered Plan	Block	Lot
20	A B	1
24		75
49		82 — 84 both inclusive
		1 — 25 both inclusive
		B — E both inclusive
		Y
112		Matilda St. closed
		John St. closed
		7
		1 — 19 both inclusive
		25 — 56 both inclusive
		D
158		Catherine St. closed
		Blvd.
	5	
	8	
159	9	
	Park lot A	
177	4	
201	31 — 35 both inclusive	
	37 — 44 both inclusive	
	blvd.	
	13 — 15 both inclusive	
M-18	2	4 — 6 both inclusive
11 M-31	A	1 — 60 both inclusive
	61 — 65 both inclusive	

2. In the Village of Port Stanley, (formerly in the Township of Southwold), County of Elgin and being composed of part or all of the following lots:

Concession	Lot
1st Range North of Lake Rd.	15 — 16 both inclusive D

3. In the Village of Port Stanley, (formerly in the Township of Yarmouth), County of Elgin and being composed of part or all of the following lots:

Concession	Lot
1	1, 2

4. In the Township of Southwold, County of Elgin, and being composed of part or all of the following blocks or lots as shown on Registered Plans:

Registered Plan	Block	Lot
20		2 — 25 both inclusive 57 — 61 both inclusive
39	E F G H I K M N P R	N S T

5. In the Township of Southwold, County of Elgin, and being composed of part or all of the following lots:

Concession	Lot
Range 1 North Lake Road	D 14 16
Range 2 North Lake Road	14 — 16 both inclusive
Range 1 South Lake Road	14 — 16 both inclusive
Range 2 South Lake Road	13 — 16 both inclusive
2	1

Schedule 4

That portion of the Kettle Creek watershed and its tributaries within the fill line as outlined by a dashed line on maps entitled "Kettle Creek Conservation Authority Rural Fill Line Mapping" filed in the Regional Office of the Ministry of Natural Resources at London as numbers KC4-1 to KC4-38, both inclusive, KC4-40 to KC4-47, both inclusive, KC4-51 to KC4-53, both inclusive, KC4-55 to KC4-64, both inclusive, KC4-67 to KC4-70, both inclusive, KC4-72 to KC4-76, both inclusive, KC4-81 and KC4-82 all dated May, 1976 and revised January, 1985 as follows:

1. In the Township of Delaware in the County of Middlesex, and being composed of the following lots (or part thereof) and concessions:

Concession	Lot
II	13 — 22 both inclusive
III	19 — 24 both inclusive

Concession	Lot
IV	16 — 24 both inclusive

2. In the Township of North Dorchester in the County of Middlesex, and being composed of the following lots (or part thereof) and concessions:

Concession	Lot
III	15, 16
IV	10 13 — 17 both inclusive

Concession	Lot
V	6 — 18 both inclusive
VI	5 — 8 both inclusive 11, 12 14 — 18 both inclusive 20 — 24 both inclusive

3. In the Township of South Dorchester in the County of Elgin, and being composed of the following lots (or part thereof) and concessions:

Concession	Lot
VII	3 — 23 both inclusive

Concession	Lot
VIII	4, 5 13, 14 21 — 24 both inclusive

4. In the Township of Southwold in the County of Elgin, and being composed of the following lots (or parts thereof) and concessions:

Concession	Lot
1st Range South of Union Road	5 — 16 both inclusive
2nd Range South of Union Road	5 — 13 both inclusive
Block C	

Concession	Lot
3rd Range South of Union Road	5
3rd Range North of Lake Road	5, 6 8 — 13 both inclusive
2nd Range North of Lake Road	9 — 12 both inclusive

Concession	Lot
1st Range North of Union Road	9 — 16 both inclusive
2nd Range North of Union Road	9 — 12 both inclusive 14 — 16 both inclusive
1st Range West of Mill Road	1 — 6 both inclusive
2nd Range West of Mill Road	1 — 5 both inclusive
1st Range East of Mill Road	1 — 6 both inclusive
1st Range East of River Road	1 — 8 both inclusive
2nd Range East of River Road	1 — 9 both inclusive
1st Range West of River Road	2 — 6 both inclusive
2nd Range West of River Road	3 — 6 both inclusive
3rd Range West of River Road	4 — 6 both inclusive
4th Range West of River Road	5, 6

Concession	Lot
North of Talbot Road East	40 — 45 both inclusive
Gore	A — C both inclusive
South of North Talbot Road	31 — 41 both inclusive
East of North Branch of Talbot Road	A — D both inclusive 41 — 46 both inclusive 48
North of North Branch of Talbot Road	29 — 38 both inclusive 40 E
West of North Branch of Talbot Road	G 46 — 48 both inclusive
III	18 — 21 both inclusive 24 — 27 both inclusive
IV	18 — 21 both inclusive 24 — 27 both inclusive
Block D	3
South of Talbot Road East	8, 9 17 26 39 — 41 both inclusive 43, 44

5. In the Township of Westminster in the County of Middlesex, and being composed of the following lots (or part thereof) and concessions:

Concession	Lot
V	7 — 10 both inclusive 12 14, 15
VI	2, 3 6 — 17 both inclusive
VII	2, 3, 4 6, 7 9, 10 12, — 21 both inclusive
VIII	3 — 12 both inclusive 14 — 23 both inclusive

Concession	Lot
IX	14, 15 19 21, 22, 23
Gore	16, 17 20, 21 23 25, 26
East of North Talbot Road	49 — 55 both inclusive
West of North Talbot Road	49 — 53 both inclusive 59, 60

6. In the Township of Yarmouth in the County of Elgin, and being composed of the following lots (or part thereof) and concessions:

Concession	Lot
II	1 — 14 both inclusive 20, 21
III	1 — 7 both inclusive 9 — 21 both inclusive
IV	1 — 15 both inclusive
V	1 — 7 both inclusive 11, 12 14, 15, 16
VI	1, 2, 3 6 — 12 both inclusive
Range 1 North of Edgeware Road	1 — 7 both inclusive
Range II North of Edgeware Road	4 — 8 both inclusive
X	2 4 — 12 both inclusive

PLANNING ACT, 1983

O. Reg. 447/86.

Subdivision Control—District of Rainy
River.

Made—July 23rd, 1986.

Filed—July 28th, 1986.

REGULATION MADE UNDER THE PLANNING ACT, 1983

SUBDIVISION CONTROL—DISTRICT OF RAINY RIVER

1. That part of the Townsite of Mine Centre, District of Rainy River, composed of lots 54, 55, 56, 57, 58 and 59 on a Plan registered in the Land Registry Office for the Land Titles Division of Rainy River (No. 48) as Number SM-102 is designated as part of a plan of subdivision which part shall be deemed not to be a registered plan of subdivision for the purpose of subsection 49 (3) of the Act. O. Reg. 447/86, s. 1.

BERNARD GRANDMAÎTRE
Minister of Municipal Affairs

Dated at Toronto, this 23rd day of July, 1986.

(9145)

33

FUEL TAX ACT, 1981

O. Reg. 448/86.

General.

Made—July 24th, 1986.

Filed—July 29th, 1986.

Concession	Lot
XI	1 — 14 both inclusive
XII	1 — 6 both inclusive 9 — 17 both inclusive
XIII	3 — 15 both inclusive 17
XIV	8 — 17 both inclusive
XV	15, 16

O. Reg. 446/86, Sched. 4.

KETTLE CREEK CONSERVATION AUTHORITY:

ROSS L. HARRISON
Chairman

LOIS COLLINS
Secretary

Dated at St. Thomas, Ontario, this 16th day of
April, 1986.

(9144)

33

REGULATION TO AMEND ONTARIO REGULATION 778/82 MADE UNDER THE FUEL TAX ACT, 1981

1. Paragraph 3 of section 6 of Ontario Regulation 778/82 is revoked.
2. This Regulation shall be deemed to have come into force on the 1st day of July, 1986.

(9147)

33

RETAIL SALES TAX ACT

O. Reg. 449/86.

General.

Made—July 24th, 1986.

Filed—July 29th, 1986.

REGULATION TO AMEND REGULATION 904 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE RETAIL SALES TAX ACT

1. Paragraph 10 of section 1 of Regulation 904 of Revised Regulations of Ontario, 1980 is revoked and the following substituted therefor:

10. "children's clothing" means,

- (a) children's dresses, suits, coats, blouses, sweaters, undershirts, pyjamas, combinations, snowsuits, overalls and other children's garments that fit the upper half of or the whole body up to and including girl's "Canada Standard Size" 16 or boy's "Canada Standard Size" 20 or sweaters designated as girls or boys and sized small, medium or large,
- (b) children's trousers, slacks, jeans, slims, undershorts, briefs, outer shorts and other children's garments that fit at or below the waist up to and including girl's "Canada Standard Size" 16 or boy's "Canada Standard Size" 20,
- (c) dress and sport shirts designated for boys up to and including size 37 neck, and
- (d) children's hosiery or stretchy socks, hats and gloves in styles designated for children;

(9148)

33

OCCUPATIONAL HEALTH AND SAFETY ACT

O. Reg. 450/86.

Mines and Mining Plants.

Made—July 24th, 1986.

Filed—July 29th, 1986.

REGULATION TO AMEND REGULATION 694 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE OCCUPATIONAL HEALTH AND SAFETY ACT

1. Subsection 8 (1) of Regulation 694 of Revised Regulations of Ontario, 1980 is revoked and the following substituted therefor:

(1) No worker shall remain or be requested to remain in an underground mine for more than eight hours in any consecutive twenty-four hours, measured from the time the worker enters an underground mine until the time the worker leaves the underground mine. O. Reg. 450/86, s. 1.

2.—(1) Subsection 13 (1) of the said Regulation is amended by adding at the commencement thereof "Subject to subsection (5)".

(2) The said section 13 is amended by adding thereto the following subsection:

(5) Subsection (1) does not apply to a worker employed in shaft sinking where measures and procedures are adopted and put into effect that will provide equal or greater protection to the worker. O. Reg. 450/86, s. 2 (2).

3. Clause 56 (a) of the said Regulation is revoked and the following substituted therefor:

(a) meet CSA Standards B137.0-M 1981 and B137.3-M 1981;

4. Section 57 of the said Regulation is amended by adding thereto the following subsection:

(2) Every power-operated door through which vehicles or pedestrians travel,

(a) shall be clearly distinguished from its surroundings; and

(b) shall be operated in accordance with the procedures adopted by the employer for its use. O. Reg. 450/86, s. 4.

5.—(1) Clause 100 (1) (k) of the said Regulation is revoked and the following substituted therefor:

(k) except when used in an underground mine, have lights or reflectors that show the width of the vehicle to a person in the path of its direction of travel;

(2) Subsection 100 (4) of the said Regulation, as made by subsection 23 (3) of Ontario Regulation 569/83, is revoked and the following substituted therefor:

(4) Except when the motor vehicle is used in an underground mine, a rear view mirror shall be installed in the motor vehicle where the view to the rear of the operator is limited. O. Reg. 450/86, s. 5 (2).

6.—(1) Subsection 129 (1) of the said Regulation is amended by striking out "in a mine" in the second and third lines and inserting in lieu thereof "in an underground mine".

(2) Subsection 129 (5) of the said Regulation is amended by striking out "1.5 metres" in the second line and inserting in lieu thereof "1 metre".

7. Clause 158 (a) of the said Regulation is revoked and the following substituted therefor:

- (a) meet or exceed the National Electrical Manufacturers Association Standard WC3-1980, WC7-1982 or WC8-1976;

8. Section 160 of the said Regulation is amended by striking out "CSA Standard C22.1-1975" in the first line and inserting in lieu thereof "CSA Standard C22.1-1982".

9. Section 171 of the said Regulation is revoked and the following substituted therefor:

171.—(1) The outer jackets of signal and telephone cables in an underground mine shall be made of materials that by themselves will not facilitate the spread of fire.

(2) Subsection (1) applies only to outer jackets replaced or newly-installed after the coming into force of this Regulation. O. Reg. 450/86, s. 9.

10. Subsection 206 (4) of the said Regulation is amended by striking out "and" at the end of clause (a), by adding "and" at the end of clause (b) and by adding thereto the following clause:

- (c) the hoist brakes are applied automatically upon the loss of electrical, hydraulic or pneumatic power.

11. Subsection 218 (7) of the said Regulation is revoked and the following substituted therefor:

(7) Devices shall be installed for a friction hoist that are set to interrupt the safety circuit where,

- (a) there is abnormal slip between the hoist drum and the hoist ropes;
- (b) there is abnormal wear of the rope treads or the tread wear limit has been reached;
- (c) a shaft conveyance and counterweight approaches the collar of a mine shaft at excessive speed; or
- (d) a violent swing or large rise in the loop of a balance rope occurs. O. Reg. 450/86, s. 11.

12.—(1) Clause 232 (e) of the said Regulation is revoked and the following substituted therefor:

- (e) except when the hoist is on automatic control due to a temporary absence of the operator from the hoist controls, set the brakes and controls so that at least two separate and distinct actions are required to put the hoist in motion;

(2) Clause 232 (k) of the said Regulation is revoked and the following substituted therefor:

- (k) upon receiving three signals, remain at the hoist controls unless advised orally by the person in charge of the conveyance that hoist movement will not be required.

13. Subsection 238 (6) of the said Regulation is revoked and the following substituted therefor:

(6) After every eighteen months of service on a friction hoist, the portion of the hoisting rope and tail rope that is within the wedge and socket attachments shall be cut off unless that portion of the rope is visually examined and it is found that,

- (a) there are no broken wires;
 - (b) there is no advanced corrosion;
 - (c) there is no excessive pitting; and
 - (d) there is no excessive deformation of wires.
- O. Reg. 450/86, s. 13.

(9149)

PLANNING ACT, 1983

O. Reg. 451/86.

Restricted Areas—The Regional Municipality of York, Town of Markham.

Made—July 28th, 1986.

Filed—July 31st, 1986.

REGULATION TO AMEND ONTARIO REGULATION 104/72 MADE UNDER THE PLANNING ACT, 1983

1. Ontario Regulation 104/72 is amended by adding thereto the following section:

48.—(1) A church and buildings and structures accessory thereto may be erected and used on the land described in subsection (2) if the following requirements are met:

Maximum building height	19 metres
Minimum side yards	7.5 metres
Minimum rear yard	7.5 metres
Minimum distance between any building or structure and centre line of Major MacKenzie Drive	36 metres
Maximum floor area of all buildings	25 per cent of lot area

Parking

One parking space per 17.5 square metres gross floor area of all buildings or one parking space per 6 seats based on the seating capacity of the main worship area, whichever is greater.

(2) Subsection (1) applies to that parcel of land in the Town of Markham in The Regional Municipality of York, being that part of Lot 21 in Concession VII designated as Part 1 on a Plan deposited in the Land Registry Office for the Registry Division of York Region (No. 65) as Number 65R-9385. O. Reg. 451/86, s. 1.

L. J. FINCHAM

Director

Plans Administration Branch

Central and Southwest

Ministry of Municipal Affairs

Dated at Toronto, this 28th day of July, 1986.

(9171)

33

MILK ACT

O. Reg. 452/86.

Marketing of Milk to Fluid Milk Processors.

Made—July 30th, 1986.

Filed—July 31st, 1986.

REGULATION TO AMEND ONTARIO REGULATION 541/81 MADE UNDER THE MILK ACT

1.—(1) Subsection 15 (4) of Ontario Regulation 541/81, as remade by subsection 1 (1) of Ontario Regulation 417/85, is revoked and the following substituted therefor:

(4) All Class 3 milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$44.46 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 452/86, s. 1 (1).

(2) Subsection 15 (5) of the said Regulation, as remade by subsection 1 (2) of Ontario Regulation 417/85, is revoked and the following substituted therefor:

(5) All Class 4 milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$44.12 per

hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 452/86, s. 1 (2).

(3) Subsection 15 (6) of the said Regulation, as remade by subsection 1 (1) of Ontario Regulation 489/85, is revoked and the following substituted therefor:

(6) All Class 4a milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$41.40 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 452/86, s. 1 (3).

(4) Subsection 15 (7) of the said Regulation, as remade by subsection 1 (2) of Ontario Regulation 489/85, is revoked and the following substituted therefor:

(7) All Class 4b milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$41.40 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 452/86, s. 1 (4).

(5) Subsection 15 (8) of the said Regulation, as remade by subsection 1 (5) of Ontario Regulation 417/85, is revoked and the following substituted therefor:

(8) All Class 4c milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$44.12 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 452/86, s. 1 (5).

(6) Subsection 15 (9) of the said Regulation, as remade by subsection 1 (3) of Ontario Regulation 489/85, is revoked and the following substituted therefor:

(9) All Class 5 milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$40.26 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 452/86, s. 1 (6).

(7) Subsection 15 (10) of the said Regulation, as remade by subsection 1 (4) of Ontario Regulation 489/85, is revoked and the following substituted therefor:

(10) All Class 5a milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$39.89 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 452/86, s. 1 (7).

(8) Subsection 15 (11) of the said Regulation, as remade by section 1 of Ontario Regulation 507/85, is revoked and the following substituted therefor:

(11) All Class 6 milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$40.26 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 452/86, s. 1 (8).

(9) Subsection 15 (12) of the said Regulation, as remade by subsection 1 (8) of Ontario Regulation 417/85, is revoked and the following substituted therefor:

(12) The minimum prices that apply under subsections (1) to (11) shall be increased or decreased at the rate of \$0.6408 for each 0.10 kilograms of milk-fat above or below 3.6 kilograms of milk-fat in each hectolitre of milk. O. Reg. 452/86, s. 1 (9).

2. Paragraph 1 of subsection 20 (1) of the said Regulation, as remade by section 2 of Ontario Regulation 417/85, is revoked and the following substituted therefor:

1. A payment on account at the rate of \$33.29 per hectolitre, not later than the 14th day of the next following month or, where a holiday falls within the first twelve days of that month, not later than the 15th day of that month.

3. This Regulation comes into force on the 1st day of August, 1986.

THE ONTARIO MILK MARKETING BOARD:

J. GRANT SMITH
Chairman

H. PARKER
Secretary

Dated at Mississauga, this 30th day of July, 1986.

(9172)

33

MILK ACT

O. Reg. 453/86.

Industrial Milk—Marketing.

Made—July 30th, 1986.

Filed—July 31st, 1986.

**REGULATION TO AMEND
REGULATION 623 OF
REVISED REGULATIONS OF
ONTARIO, 1980
MADE UNDER THE
MILK ACT**

1.—(1) Subsection 13 (1) of Regulation 623 of Revised Regulations of Ontario, 1980, as remade by subsection 1 (1) of Ontario Regulation 418/85, is revoked and the following substituted therefor:

(1) All Class 3 milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$44.46 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 453/86, s. 1 (1).

(2) Subsection 13 (2) of the said Regulation, as remade by subsection 1 (2) of Ontario Regulation 418/85, is revoked and the following substituted therefor:

(2) All Class 4 milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$44.12 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 453/86, s. 1 (2).

(3) Subsection 13 (3) of the said Regulation, as remade by subsection 1 (1) of Ontario Regulation 488/85, is revoked and the following substituted therefor:

(3) All Class 4a milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$41.40 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 453/86, s. 1 (3).

(4) Subsection 13 (4) of the said Regulation, as remade by subsection 1 (2) of Ontario Regulation 488/85, is revoked and the following substituted therefor:

(4) All Class 4b milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$41.40 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 453/86, s. 1 (4).

(5) Subsection 13 (4a) of the said Regulation, as remade by subsection 1 (5) of Ontario Regulation 418/85, is revoked and the following substituted therefor:

(4a) All Class 4c milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$44.12 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 453/86, s. 1 (5).

(6) Subsection 13 (5) of the said Regulation, as remade by subsection 1 (3) of Ontario Regulation 488/85, is revoked and the following substituted therefor:

(5) All Class 5 milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$40.26 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 453/86, s. 1 (6).

(7) Subsection 13 (6) of the said Regulation, as remade by subsection 1 (4) of Ontario Regulation 488/85, is revoked and the following substituted therefor:

(6) All Class 5a milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$39.89 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 453/86, s. 1 (7).

(8) Subsection 13 (7) of the said Regulation, as remade by section 1 of Ontario Regulation 508/85, is revoked and the following substituted therefor:

(7) All Class 6 milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$40.26 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 453/86, s. 1 (8).

(9) Subsection 13 (8) of the said Regulation, as remade by subsection 1 (8) of Ontario Regulation 418/85, is revoked and the following substituted therefor:

(8) The minimum prices that apply under subsections (1), (2), (3), (4), (4a), (5), (6) and (7) shall be increased or decreased at the rate of \$0.6408 for each 0.10 kilograms of milk-fat above or below 3.6 kilograms of milk-fat in each hectolitre of milk. O. Reg. 453/86, s. 1 (9).

2. Paragraph 1 of subsection 20 (1) of the said Regulation, as remade by section 2 of Ontario Regulation 488/85, is revoked and the following substituted therefor:

1. A payment on account at the rate of \$26.17 per hectolitre, not later than the 14th day of the next following month or, where a holiday falls within the first twelve days of that month, not later than the 15th day of that month.

3. This Regulation comes into force on the 1st day of August, 1986.

THE ONTARIO MILK MARKETING BOARD:

J. GRANT SMITH
Chairman

H. PARKER
Secretary

Dated at Mississauga, this 30th day of July, 1986.

EDUCATION ACT

O. Reg. 454/86.

County Combined Separate School Zones.

Made—July 31st, 1986.

Filed—July 31st, 1986.

REGULATION TO AMEND REGULATION 257 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE EDUCATION ACT

1. Paragraph 12 of section 1 of Regulation 257 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 418/81, is revoked and the following substituted therefor:

12. The County of Simcoe, the towns of Bracebridge and Gravenhurst, the Township of Georgian Bay, and the Township of Muskoka Lakes in The District Municipality of Muskoka, designated as "Simcoe".

(9174)

33

HEALTH INSURANCE ACT

O. Reg. 455/86.

General.

Made—July 31st, 1986.

Filed—August 1st, 1986.

REGULATION TO AMEND REGULATION 452 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE HEALTH INSURANCE ACT

1. Subsection 46 (3) of Regulation 452 of Revised Regulations of Ontario, 1980 is revoked and the following substituted therefor:

(3) It is a condition for the performance and for payment of the insured services set out in Schedule 19 that they be performed in conjunction with one or more of the insured services set out in Schedule 18 or Schedule 20. O. Reg. 455/86, s. 1.

2. Schedules 18, 19 and 20 to the said Regulation, as remade by section 1 of Ontario Regulation 388/84, are revoked and the following substituted therefor:

Schedule 18

PREAMBLE

1. The surgical benefits include hospital visits rendered by the dental surgeon/oral surgeon, the operative procedure, usual post-operative care rendered by the surgeon in hospital and one follow-up visit in the office.

2. PREMIUMS:

Non-elective Dental Surgical Procedures

When such procedures commence after 5:00 p.m. and before midnight or on Saturdays, Sundays and holidays increase the procedural fee by 30% (T809).

When such procedures commence after midnight but before 7:00 a.m. on any night the procedural fee is increased by 50% (T810).

3. Multiple Operative Procedures: when more than one procedure is performed, the major procedure will be paid at the full fee and subsequent procedures performed at the same time will be paid at 85% of the listed fee, unless multiple procedures are identified by a specific code.
4. APPLICATION OF FIXATION DEVICES AND SPLINTS. The procedures and fees listed in the Schedule of Benefits include all intra-operative surgical aspects of that procedure and include the placement of arch bars, intermaxillary fixation and the wiring of dentures or splints in fractures and dislocations.
5. CONSULTATIONS
 - A. Dental consultations are benefits of the Plan when such consultations are requested by a physician or dental/oral surgeon in light of his professional knowledge of the patient.
 - B. A hospital consultation fee is payable in addition to the listed dental procedure(s).
 - C. A consultation report must be entered on the patient's chart.
 - D. Consultation fees are payable for admitted bed patients and when the dental/oral surgeon is requested to see a patient in the Emergency or Outpatient Department. Consultations are not insured services for patients seen in a private dental office, even if the office is located in a hospital.
6. SURGICAL ASSISTANT.

Assistant's fees should only be claimed when the complexity of the procedure requires the assistance of a second qualified surgeon. Assistant's fees are not payable for procedures where an assistant is not normally required.

Column 1

Column 2 Column 3

GINGIVOPLASTY AND VESTIBULOPLASTY

T330	73119	Gingivoplasty, independent of tooth extraction, per quadrant	33.30	40.00
T331	73121	Excision of vestibular hyperplastic tissue, per quadrant	-	93.60
T332	73123	Surgical shaving of papillary hyperplasia of the palate	-	172.10
T333	73130	Remodelling of the mylohyoid ridge	-	121.50
T334	73131	Remodelling of the genial tubercles	-	121.50
T335	73132	Excision of nasal spine	-	121.50
T336	73133	Excision of torus palatinus	112.50	135.00
			-225.90	-271.10
T337	73134	Excision of torus mandibularis, unilateral	112.50	135.00
			-225.90	-271.10
T338	73135	Excision of torus mandibularis, bilateral	112.50	135.00
			-225.90	-271.10
T339	73140	Removal of multiple exostosis, per quadrant	112.50	135.00
			-225.90	-271.10
T340	73141	Removal of multiple exostosis, per arch	112.50	135.00
			-225.90	-271.10
T341	73150	Reduction tubero-plasty, unilateral	-	126.60
T342	73151	Reduction tubero-plasty, bilateral	-	253.20
T343	73160	Augmentation pterygo-maxillary tubero-plasty, unilateral	-	126.60
T344	73161	Augmentation pterygo-maxillary tubero-plasty, bilateral	-	253.20
T345	73200	Total lowering of floor of mouth	-	380.00
T346	73201	Partial lowering of floor of mouth	-	225.00
T347	73300	Submucous vestibulo-plasty, maxilla	-	225.00
T348	73301	Submucous vestibulo-plasty, mandible	-	225.00
T349	73310	Vestibulo-plasty with secondary epithelization, maxilla	-	297.30
T350	73311	Vestibulo-plasty with secondary epithelization, mandible	-	297.30
T351	73330	Vestibulo-plasty with skin graft, maxilla	-	531.50
T352	73331	Vestibulo-plasty with skin graft, mandible	-	531.50
T353	73340	Vestibulo-plasty with mucosal graft, maxilla	-	594.90
T354	73341	Vestibulo-plasty with mucosal graft, mandible	-	594.90
T355	73350	Alveolar ridge reconstruction with autogenous bone, maxilla	-	594.90
T356	73351	Alveolar ridge reconstruction with autogenous bone, mandible	-	594.90
T357	73360	Alveolar ridge reconstruction with alloplastic material, maxilla	-	594.90
T358	73361	Alveolar ridge reconstruction with alloplastic material, mandible	-	594.90

TUMOURS

T370	74108	Resection of benign soft tissue lesion, 1 cm. or under (incl. biopsy)....	99.00	118.80
T371	74109	Resection of benign tumor of soft tissue, over 1 cm. in diameter	I.C.	145.00
T372	74110	Excision of benign tumor of bone of maxilla or mandible, 1 to 3 cm.	-	126.60
T373	74118	Excision of benign tumour of bone of maxilla or mandible, greater than 3 cm.	-	215.60
T374	74200	Excision of malignant tumour of soft tissue of the oral cavity or lip, under 3 cm.	-	126.60
T375		Excision of malignant tumour of soft tissue of the oral cavity, greater than 3 cm.	-	215.60
T376	74210	Excision of malignant tumour of bone of maxilla or mandible, under 3 cm..	-	126.60
T377	74218	Excision of malignant tumour of bone of maxilla or mandible, greater than 3 cm.	-	215.60
T378	74220	Cheiloplasty (lip shave)	-	303.80

BONE GRAFTS

T380	74300	Bone graft to maxilla or mandible, unilateral	-	651.00
T381	74301	Bone graft to maxilla or mandible, bilateral	-	889.00

CYSTS

T390	74408	Excision of cyst, not in conjunction with tooth removal (enucleation including biopsy) 1 cm. or under	99.00	118.80
T391	74401	Excision of cyst, not in conjunction with tooth removal (enucleation including biopsy) 1 cm. to 3 cm.	-	126.60
T392	74411	Excision of cyst, not in conjunction with tooth removal (enucleation including biopsy) over 3 cm.	-	215.60
T394	74410	Marsupialization of cyst (includes 12 post surgical visits)	-	267.60

Column 1

Column 2 Column 3

SURGICAL INCISION

T397	75208	Surgical exploration - soft tissue intraoral	-	78.00
T398	75209	Surgical exploration - soft tissue extraoral	-	190.10
T399	75212	Surgical exploration - hard tissue intraoral	-	157.80
T400	75214	Surgical exploration - hard tissue extraoral	-	302.20
T401	75100	Incision and drainage - soft tissue, intraoral	27.90	33.50
T402	75110	Trephination and drainage - hard tissue, intraoral	65.70	78.80
T403	75200	Incision and drainage of abscess, extraoral	-	140.00
T404	75500	Sequestrectomy for osteomyelitis, intraoral	-	120.00
T405	75501	Sequestrectomy for osteomyelitis, extraoral	-	270.35
T406	75510	Sequestrectomy and saucerization	-	290.15
T407	75531	Partial mandibulectomy - up to 3 cm	-	296.00
T408	75532	Partial mandibulectomy - greater than 3 cm	-	444.00
T409	75540	Total mandibulectomy	-	666.00
T427	75551	Partial maxillectomy - up to 3 cm	-	296.00
T428	75552	Partial maxillectomy - greater than 3 cm	-	444.00
T429	75560	Total maxillectomy	-	666.00

FRACTURES

T410	76100	Intermaxillary fixation	-	105.00
T411	76110	Wiring of dentures of splint or arch bar	-	105.00
T412	76120	Circumzygomatic wiring, unilateral	-	36.75
T413	76130	Periosteal or transpalatal wiring	-	36.75
T414	76140	Nasal spine wiring	-	36.75
T415	76150	Piriforme apertures suspension, each	-	36.75
T416	76160	Circummandibular wiring, one	-	36.75
T417	76170	Circummandibular wiring, two	-	73.50
T418	76180	Circummandibular wiring, three and over	-	110.25
T419	76191	Orbital suspension, bilateral	-	153.10
T420	76192	Extra skeletal suspension (e.g. Head Frame)	-	206.85
T421	76195	Removal of wire (by different surgeon)	-	35.70
T422	76196	Removal of arch splint (by a different surgeon)	-	70.35
T423	76197	Removal of Interosseous or bone plate	-	119.70
T424	76820	Open reduction Le Forte III craniofacial dysfunction	-	639.45

Mandible

T430	76210	Closed reduction	200.90	251.05
			-224.00	-279.90
T431	76220	Open reduction, single	-	371.80
T432	76230	Open reduction, double	-	570.40
T433	76240	Open reduction, multiple	-	778.70

Maxilla, horizontal

T440	76310	Closed reduction	224.00	279.90
T441	76320	Open reduction, single	-	371.80
T442	76330	Open reduction, double	-	507.40
T443	76340	Open reduction, multiple	-	778.70

Maxillo-Malar pyramidal LeFort II

T450	76410	Closed reduction	-	279.90
T451	76420	Open reduction, unilateral	-	371.80
T452	76430	Open reduction, bilateral	-	507.40

Naso-orbital

T460	76510	Open reduction, external approach	-	415.60
T461	76520	Open reduction, sinus approach	-	315.00
T462	76530	Open reduction, orbital approach, with insertion of subperiosteal implant	-	463.70

Malar bone

T470	76620	Open reduction	-	315.00
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Zygomatic arch

T480	76710	Intraoral approach	-	157.40
T481	76720	Temporal approach	-	315.00

Alveolus

T490	76910	Fracture of alveolus including debridement and necessary extraction - stabilization of teeth	131.40	157.70
			-263.70	-316.40
T491	76940	Reimplantation of avulsed tooth (incl. root canal therapy and surgery)...	131.40	157.70

Column 1

Column 2 Column 3

LACERATIONS

T501	76950	Repair of uncomplicated laceration, intraoral or extraoral, 2 cm or less.	33.30	40.00
T502	76951	2 - 12 cm	33.30	40.00
	76954		-65.70	-78.80
T503	76955	Over 12 cm	-	101.40
	76959			
T504	76960	Repair of through and through laceration, 2 cm or less	-	76.60
T505	76961	Greater than 2 cm	-	170.30
	76964			

Repair of Complicated Laceration (local tissue shifts - scar revision) intraoral and extraoral

T520	76970	- up to 2.5 cm	-	52.50
T521	76971	- 2.6 cm to 5 cm	-	84.00
T522	76972	- 5.1 cm to 10 cm	-	168.00

ORTHOGNATHIC SURGERY

Note: When more than one of the subsequent procedures are performed at the same time, an explanation (or an operative report) should be submitted with the claim for independent consideration.

T540	77100	Subcondylar closed osteotomy	-	743.70
T541	77120	Subcondylar open osteotomy	-	1,076.00
T542	77130	Oblique osteotomy of ramus, extraoral	-	1,076.00
T543	77140	Oblique osteotomy of ramus, intraoral	-	1,076.00
T544	77150	Body osteotomy or osteotomy	-	1,076.00
T545	77160	Coronoidectomy	-	460.00
T546	77170	Osteotomy of the condylar neck	-	460.00
T547	77180	Sagittal split osteotomy, intraoral	-	1,076.00
T548	77190	Sagittal split osteotomy, extraoral	-	1,076.00
T550	77210	Inverted L osteotomy	-	1,076.00
T551	77220	C osteotomy	-	1,076.00
T532	77300	LeFort I advancement - in one segment	-	1,076.00
T022		- in two segments, add	-	244.20
T023		- in three segments, add	-	489.20
T534		LeFort I intrusion - in one segment	-	1,076.00
T024		- in two segments	-	244.20
T025		- in three segments, add	-	489.20
T536		LeFort I extrusion - in one segment	-	1,140.00
T026		- in two segments, add	-	244.20
T027		- in three segments, add	-	489.20
T538		LeFort I in cleft patient - in one segment	-	1,255.60
T028		- in two segments, add	-	210.70
T029		- in three segments, add	-	421.40
T030		- with SMR, add	-	168.60
T031		- with pharyngoplasty, add	-	252.85
T032		- with closure alveolar fistula with or without bone graft, add	-	315.90
T033		- with closure hard palate fistula with or without bone graft, add	-	421.40
T554	77320	Le Fort II osteotomy	-	1,216.00
T200	77330	Le Fort III osteotomy	-	1,677.00
T201		Pericranial flap to orbit or face - unilateral	-	252.85
T202		- bilateral	-	337.10
		- when in conjunction with coronal approach for main operation		
T011		- unilateral	-	147.30
T012		- bilateral	-	244.20
T555	77400	Anterior segmental osteotomy of the maxilla,	-	960.00
T556	77410	Posterior segmental osteotomy of the maxilla,	-	1,076.00
T557	77430	Midpalatal split, complete	-	563.40
T558	77440	Anterior segmental osteotomy of the mandible,	-	960.00
T559	77450	Anterior segmental osteotomy of mandible with transfer of mental eminence	-	1,076.00
T527	78230	Plication of the posterior attachment of the disc of the T.M.J.	-	746.90
T528	78410	Reconstruction of the glenoid fossa, zygomatic arch and temporal bone (Obwegesser technique)	-	1,154.80
T560	77451	Anterior segmental osteotomy of mandible without transfer of mental eminence	-	1,076.00
T561	77460	Posterior segmental osteotomy of the mandible	-	1,076.00
T562	77461	Total dento-alveolar osteotomy of the mandible	-	1,076.00
T563	77500	Sliding genioplasty	-	450.00
T564	77520	Reduction genioplasty	-	450.00

Column 1

Column 2 Column 3

ORTHOGNATHIC SURGERY - cont'd.

T565	77530	Augmentation genioplasty with alloplastic material	-	450.00
T566	77531	Augmentation genioplasty with bone graft	-	450.00
T567	77550	Lower border osteotomy	-	537.00
T523	77630	Unilateral cleft lip repair	-	299.30
T524	77640	Reconstruction of cleft lip with a lip switch flap	-	366.30
T525	77645	Complex reconstruction or revision of a cleft lip	-	I.C.

Note: Services listed under codes T563, T564, T565, T566, T567, T585 are not a benefit when done for cosmetic reason.

T568	77700	Palatorrhaphy, anterior	-	I.C.
T569	77710	Palatorrhaphy, posterior	-	I.C.
T570	77720	Palatorrhaphy, total	-	I.C.
T571	77730	Palatorrhaphy, with bone graft	-	I.C.
T572	77740	Bone graft to anterior alveolar ridge	-	I.C.
T204	77540	Suprahyoid myotomy	-	210.00

FRENECTOMY & GLOSSECTOMY

T580	77840	Lingual frenectomy or Z plasty	53.00	63.80
T581	77850	Lingual frenectomy or Z plasty with myotomy of genioglossus	-	87.50
T582	77860	Partial glossectomy, anterior wedge	-	157.40
T583	77870	Partial glossectomy, full postero anterior wedge	-	258.00

METAL IMPLANTS & ALLOPLASTIC RECONSTRUCTION

T585	58217	Silastic chin implant	-	I.C.
T586	58218	Chrome-cobalt mandibular mesh prosthesis	-	I.C.
T587	58400	Temporo mandibular joint prosthesis	-	I.C.
T588	74302	Implantation of intraosseous prosthesis (not to incl. dental implants)...	-	735.20
T589	74303	Removal of intraosseous prosthesis (not to incl. dental implants)	-	496.70
T210		Bone graft to standard facial osteotomy unless otherwise included in the description of the surgery	-	200.00

Onlay bone grafts to face when not part of standard osteotomy for reconstruction*

T101		- mandible - unilateral	-	295.40
T102		- mandible - bilateral	-	379.70
T105		- maxilla - unilateral	-	295.40
T106		- maxilla - bilateral	-	379.70
T109		- zygoma - unilateral	-	252.85
T110		- zygoma - bilateral	-	337.10
T113		- temporal - unilateral	-	337.10
T114		- temporal - bilateral	-	421.40
T117		- frontal - unilateral	-	337.10
T118		- frontal - bilateral	-	421.40

Application of dental arch bars, or splint, for facial osteotomy

T121		- one arch bar	-	109.90
T122		- two arch bars	-	168.60

Removal intermaxillary fixation devices under general anaesthesia

T215		- as sole procedure	-	83.90
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*Includes harvesting of bone or cartilage grafts.

TEMPORO MANDIBULAR JOINT DYSFUNCTION

T220	78500	Arthrocentesis	-	71.40
T225	78600	Injection of joint with anti-inflammatory drug	-	71.40
T230	79113	Reconstruction of Salivary Duct	-	I.C.
T590	78100	Open reduction of dislocation	-	363.10
			33.00	39.60
T591	78110	Closed reduction of dislocation, uncomplicated	-	66.00
T592	78120	Manipulation under anaesthesia	-	78.75
T593	78200	Menisectomy	-	363.10
T594	78210	Capsulorrhaphy	-	363.10
T595	78220	Myotomy of lateral pterygoid muscle	-	363.10
T596	78300	Condylectomy	-	363.10
T597	78310	Condylotomy	-	363.10
T598	78320	Oblique osteotomy with alloplastic interposition for ankylosis	-	530.80
T599	78400	Arthroplasty of articular eminence	-	415.60

Column 1

Column 2 Column 3

SALIVARY GLANDS

T760	79101	Dilation of Salivary Duct	-	71.40
T761	79102	Insertion of polyethylene tube in duct	-	71.40
T601	79103	Sialodochoplasty	-	227.70
T602	79104	Sialolithotomy, anterior 1/3 of canal	70.90	85.10
T603	79105	Sialolithotomy, posterior 2/3 of canal	-	138.20
T604	79106	Excision of submaxillary gland or sublingual gland.....	-	236.30
T606	79109	Marsupialization of ranula	-	113.90

NEUROLOGICAL DISTURBANCES

T610	79201	Injection of trigeminal nerve for destruction	-	73.30
T611	79202	Avulsion of trigeminal nerve at periphery	-	157.40
T612	79203	Total avulsion of a branch of trigeminal nerve	-	323.70
T613	79204	Transposition of mental nerve	up to	213.50
T614	79205	Decompression of inferior dental nerve in the canal	-	158.30
T615	79206	Microsuturing of injured nerve	-	152.90
T616	79220	Suturing of a major peripheral nerve - epineural.....	-	236.30
T617	79230	Suturing of a major peripheral nerve - fascicular.....	-	355.20
T618	79240	Use of an operating microscope in suturing peripheral nerves.....	-	I.C.

MAXILLARY SINUS

T620	79301	Immediate recovery of a dental root or foreign body from antrum	-	109.40
T621	79302	Immediate closure of opening of the antrum by another surgeon	-	87.50
T622	79303	Delayed recovery of root in antrum with oral antrostomy	-	161.90
T623	79304	Antrum lavage, oral approach	-	65.60
T624	79305	Antrum lavage, nasal approach	-	65.60
T625	79306	Closure of oro-antral fistula sliding buccal flap	-	185.40
T626	79307	Closure of oro-antral fistula, gold plate	-	185.40
T627	79308	Closure of oro-antral fistula sliding palatal flap	-	185.40
T628	79309	Nasal antrostomy	-	77.00

BIOPSY, CYTOLOGY

T660	04300	Biopsy of oral tissue - soft	56.70	68.00
T661	04310	Biopsy of oral tissue - hard, per 15 minutes.....	33.30	40.00
T662	04330	Cytological or bacteriological smear.....	18.90	20.70
T665	04315	Aspiration of oral tissue - soft.....	-	24.30
T667	04316	Aspiration of oral tissue - hard.....	-	36.40

T800	-	Independent Consideration will be given to claims for other dental surgical procedures approved by the Ontario Dental Association but not listed specifically in this Schedule.....	I.C.	I.C.
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EMERGENCY PROCEDURES

T630	79401	Control of dental secondary hemorrhage	27.90	33.50
T631	79603	Post-surgical care, minor, by other than treating dentist	- 56.70	-68.00
T632	79604	Post-surgical care, major, by other than treating dentist	12.60	15.10
			27.90	33.50

SURGICAL ASSISTANT

T640	76198	Assisting at reduction of fractures for listed procedures	30% of	30% of
T641	77650	Assistant at orthognatic surgery for listed procedures	surgeon's	surgeon's
T642	79999	Assisting at other listed procedures	fee	fee

CONSULTATION IN HOSPITAL

- Note: 1. The consultation fee may be claimed as described in para. 5 of the Preamble to this Schedule.
2. Claims for consultations must indicate the number of the referring physician or dentist.

T650	93100	consultation in hospital	23.40	28.10
			-46.30	-56.20

Schedule 19

PREAMBLE

1. The surgical benefits include hospital visits rendered by the dental surgeon/oral surgeon, the operative procedure, usual post-operative care rendered by the surgeon in hospital and one follow-up visit in the office.

2. PREMIUMS:

Non-elective Dental Surgical Procedures

When such procedures commence after 5:00 p.m. and before midnight or on Saturdays, Sundays and holidays increase the procedural fee by 30% (T809).

When such procedures commence after midnight but before 7:00 a.m. on any night the procedural fee is increased by 50% (T810).

3. Multiple Operative Procedures: when more than one procedure is performed, the major procedure will be paid at the full fee and subsequent procedures performed at the same time will be paid at 85% of the listed fee, unless multiple procedures are identified by a specific code.
4. APPLICATION OF FIXATION DEVICES AND SPLINTS. The procedures and fees listed in the Schedule of Benefits include all intra-operative surgical aspects of that procedure and include the placement of arch bars, intermaxillary fixation and the wiring of dentures or splints in fractures and dislocations.
5. CONSULTATIONS
 - A. Dental consultations are benefits of the Plan when such consultations are requested by a physician or dental/oral surgeon in light of his professional knowledge of the patient.
 - B. A hospital consultation fee is payable in addition to the listed dental procedure(s).
 - C. A consultation report must be entered on the patient's chart.
 - D. Consultation fees are payable for admitted bed patients and when the dental/oral surgeon is requested to see a patient in the Emergency or Outpatient Department. Consultations are not insured services for patients seen in a private dental office, even if the office is located in a hospital.
6. SURGICAL ASSISTANT.

Assistant's fees should only be claimed when the complexity of the procedure requires the assistance of a second qualified surgeon. Assistant's fees are not payable for procedures where an assistant is not normally required.

Column 1

Column 2 Column 3

ROOT RESECTION AND APICAL CURETTAGE

T701	34101	Apical curettage and/or root resection, one root, uncomplicated as a separate procedure	164.70	197.60
T702	34102	Apical curettage and/or root resection, one root, complicated by anatomic and/or pathologic conditions as a separate procedure	197.10	236.50
T703	34103	Apical curettage and/or root resection, two roots, uncomplicated as a separate procedure	230.40	276.50
T704	34104	Apical curettage and/or root resection, three or more roots, uncomplicated, as a separate procedure	263.70	316.40
T705	34111	Apical curettage and/or root resection, performed in conjunction with endodontic treatment, one root, uncomplicated	107.10	128.50
T706	34112	Apical curettage and/or root resection, performed in conjunction with endodontic treatment, one root, complicated by anatomic position	131.40	157.70
T707	34114	Apical curettage and/or root resection, performed in conjunction with endodontic treatment, two roots	164.70	197.60
T708	34115	Apical curettage and/or root resection, performed in conjunction with endodontic treatment, three or more roots	214.20	257.00
T709	34201	Amalgam and non-metallic compounds or silver points, one root, uncomplicated	197.10	236.50
T710	34202	Amalgam and non-metallic compounds or silver points, one root, complicated by anatomic and/or pathological conditions	263.70	316.40
T711	34212	Amalgam and non-metallic compounds or silver points, two roots	263.70	316.40
T712	34213	Amalgam and non-metallic compounds or silver points, three roots	313.20	375.80

Note: Services listed under codes T709, T710, T711, T712, include root-end filling, apical curettage and root resection.

O. Reg. 455/86, s. 2, *part.*

Schedule 20

PREAMBLE

1. The surgical benefits include hospital visits rendered by the dental surgeon/oral surgeon, the operative procedure, usual post-operative care rendered by the surgeon in hospital and one follow-up visit in the office.

2. PREMIUMS:

Non-elective Dental Surgical Procedures

When such procedures commence after 5:00 p.m. and before midnight or on Saturdays, Sunday, and holidays increase the procedural fee by 30% (T809).

When such procedures commence after midnight but before 7:00 a.m. on any night the procedural fee is increased by 50% (T810).

3. Multiple Operative Procedures: when more than one procedure is performed, the major procedure will be paid at the full fee and subsequent procedures performed at the same time will be paid at 85% of the listed fee, unless multiple procedures are identified by a specific code.
4. APPLICATION OF FIXATION DEVICES AND SPLINTS. The procedures and fees listed in the Schedule of Benefits include all intra-operative surgical aspects of that procedure and include the placement of arch bars, intermaxillary fixation and the wiring of dentures or splints in fractures and dislocations.
5. CONSULTATIONS
 - A. Dental consultations are benefits of the Plan when such consultations are requested by a physician or dental/oral surgeon in light of his professional knowledge of the patient.
 - B. A hospital consultation fee is payable in addition to the listed dental procedure(s).
 - C. A consultation report must be entered on the patient's chart.
 - D. Consultation fees are payable for admitted bed patients and when the dental/oral surgeon is requested to see a patient in the Emergency or Outpatient Department. Consultations are not insured services for patients seen in a private dental office, even if the office is located in a hospital.
6. SURGICAL ASSISTANT.

Assistant's fees should only be claimed when the complexity of the procedure requires the assistance of a second qualified surgeon. Assistant's fees are not payable for procedures where an assistant is not normally required.

Column 1		Column 2	Column 3
ODONTOLOGIES			
T901	71101	Removal of single erupted tooth (bone contouring included).....	27.90 33.90
T902	71111	Removal of each additional erupted tooth in the same quadrant..	14.40 17.30
T903	72100	Removal of each erupted tooth, complicated.....	65.70 78.80
T904	72210	Removal of each tooth covered by soft tissue.....	65.70 78.80
T905	72220	Removal of each impacted tooth, partial bony impaction.....	99.00 118.80
T906	72230	Removal of each impacted tooth, complete bony impaction.....	131.40 157.70
T907	72240	Removal of each impacted tooth, unusual position, age factor (inc. super-numerary).....	150.40 180.40
T908	72310	Removal of residual roots, soft tissue coverage.....	56.70 68.00
T909	72320	Removal of residual roots, bony tissue coverage.....	65.70 78.80

Note: 1. The above listed surgical services include necessary suturing.

2. An impacted tooth is one which is prevented from its normal path or eruption by hard tissue (tooth or bone).

T910	72410	Surgical exposure of each unerupted tooth, uncomplicated, soft tissue coverage	27.90 33.50
T911	72411	Surgical exposure of each unerupted tooth, complex, hard tissue coverage.....	99.00 118.80
T912	72412	Surgical exposure of each unerupted tooth, including orthodontic attachment.....	99.00 118.80
			-197.10 -236.50

FRENECTOMY

T925	77800	Maxillary labial frenectomy.....	53.20 63.80
T926	77810	Mandibular labial frenectomy.....	53.20 63.80
T927	77820	Maxillary Z frenoplasty.....	53.20 63.80
T928	77830	Mandibular Z frenoplasty.....	53.20 63.80

ALVEOLOPLASTY

T936	73110	Alveoloplasty, independent of tooth extraction, per quadrant...	33.30 40.00
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NOTE: service involves incising and reflecting a flap, bone contouring and suturing.

CYSTS

T950	74412	Excision of cyst, in conjunction with tooth removal.....	- bill at 75% of T390, T391 or T392 unless complicated (excision of tooth is billed at 100% of usual fee).
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O. Reg. 455/86, s. 2, part.

3. This Regulation comes into force on the 25th day of July, 1986.

ADMINISTRATION OF JUSTICE ACT

O. Reg. 456/86.
Justices of the Peace.
Made—July 31st, 1986.
Filed—August 1st, 1986.

REGULATION TO AMEND
ONTARIO REGULATION 620/85
MADE UNDER THE
ADMINISTRATION OF JUSTICE
ACT

1. Section 2 of Ontario Regulation 620/85, as amended by section 3 of Ontario Regulation 188/86, is further amended by adding thereto the following subsection:

(4b) In an area within a territorial district where, in the opinion of the Chief Judge of the Provincial Court (Criminal Division), it is not feasible because of the area's remoteness to provide justice of the peace services on a fee basis, a justice of the peace designated by the Chief Judge to be available on an occasional basis,

- (a) to perform justice of the peace duties;
- (b) to assist with community legal education; and
- (c) to provide interpretation and other services in court proceedings involving native persons,

shall be paid an allowance of \$24, \$49 or \$73 per week, based on the workload of the justice of the peace, as determined by the Chief Judge. O. Reg. 456/86, s. 1.

(9176) 33

PROVINCIAL OFFENCES ACT

O. Reg. 457/86.
Proceedings Commenced by Certificate
of Offence.
Made—July 31st, 1986.
Filed—August 1st, 1986.

REGULATION TO AMEND REGULATION 817 OF
REVISED REGULATIONS OF ONTARIO, 1980
MADE UNDER THE
PROVINCIAL OFFENCES ACT

1. Items 9 and 10 of Schedule 60 to Regulation 817 of Revised Regulations of Ontario, 1980, as made by section I of Ontario Regulation 766/82, are revoked and the following substituted therefor:

- | | | |
|------|--|------------|
| 9. | Having stilts on project | section 78 |
| 9a. | Using stilts on project | section 78 |
| 10. | Having leg extension device on project | section 78 |
| 10a. | Using leg extension device on project | section 78 |

(9177) 33

CHILDREN'S LAW REFORM ACT

O. Reg. 458/86.
Forms.
Made—July 31st, 1986.
Filed—August 1st, 1986.

REGULATION TO AMEND REGULATION 99 OF
REVISED REGULATIONS OF ONTARIO, 1980
MADE UNDER THE
CHILDREN'S LAW REFORM ACT

1. Section 2 of Regulation 99 of Revised Regulations of Ontario, 1980 is revoked and the following substituted therefor:

2.—(1) A statutory declaration affirming parentage under subsection 12 (1) of the Act shall be in Form 2.

(2) A joint statutory declaration affirming parentage under subsection 12 (2) of the Act shall be in Form 2A. O. Reg. 458/86, s. 1.

2. Forms 2, 3 and 4 of the said Regulation are revoked and the following substituted therefor:

Registration Number
(to be filled in by Registrar
General)

Form 2

Children's Law Reform Act

DECLARATION AFFIRMING PARENTAGE

I, of the
(name in full) (status of municipality)
of in the
(name of municipality) (regional municipality,
county or district)
of in the
(province or state)
of

solemnly declare that I am the mother/father of
.....
(surname of child) (given names)

a child born on
(male/female) (date)

at
(place)

Birth registration number (if known)

My date of birth is

My place of birth is

My social insurance number is

and I make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath:

Declared before me

at the ,

of

this day of

....., 19

.....

A Commissioner, etc.

.....
(signature of deponent)

O. Reg. 458/86, s. 2, *part.*

Registration Number
(to be filled in by Registrar
General)

Form 2A

Children's Law Reform Act

JOINT DECLARATION AFFIRMING PARENTAGE

1. I, of the
(mother's name in full) (status of municipality)

of in the
(name of municipality) (regional municipality,
county or district)

of in the
(province or state)

of

solemnly declare that I am the mother of

.....
(surname of child) (given names)

a child born on
(male/female) (date)

at
(place)

Birth registration number (if known)

My social insurance number is

2. I, of the
(father's name in full) (status of municipality)

of in the
(name of municipality) (regional municipality,
county or district)

of in the
(province or state)

of
solemnly declare that I am the father of the child referred to in paragraph 1.
My social insurance number is
and we make this solemn declaration conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath.

Severally declared before me
at the
of
thisday of
....., 19.....
.....
A Commissioner, etc.

}
(signature of mother)
.....
(signature of father)

O. Reg. 458/86, s. 2, *part.*

Form 3
Children's Law Reform Act
FINDING OF PARENTAGE

This court finds that a relationship of parentage has been established and,

(a) that the father is,
.....
(surname)
.....
(given names)
.....
(address)
.....
(date of birth)
.....
(social insurance number)

(b) that the mother is,
.....
(surname)
.....
(given names)
.....
(address)
.....
(date of birth)

.....
(social insurance number)

(c) and that the child is,

.....
(surname)

.....
(given names)

.....
(sex)

.....
(date of birth)

.....
(place of birth)

.....
(birth registration number)

O. Reg. 458/86, s. 2, *part.*

Registration Number
(to be filled in by Registrar
General)

Form 4

Children's Law Reform Act

STATEMENT OF FINDING OF PARENTAGE

In the, file number

Nature of proceeding

Parties

Date of Order or Judgment

Entry Number

I,, registrar/clerk
of the above court hereby state that the order/judgment in the above-mentioned matter confirms or makes a
finding of parentage setting out the following particulars:

Father: Surname

Given name(s)

Address

Birth date

Social Insurance Number

Mother: Surname

Given name(s)

Address

Birth date

Social Insurance Number

Child: Surname

Given name(s)

Sex

Birth date

Place of birth

Birth registration number

Signature Date

O. Reg. 458/86, s. 2, *part*.

(9178) 33

BLIND PERSONS' RIGHTS ACT

O. Reg. 459/86.
Dog Guides.
Made—July 31st, 1986.
Filed—August 1st, 1986.

**REGULATION TO AMEND REGULATION 83 OF
REVISED REGULATIONS OF ONTARIO, 1980
MADE UNDER THE
BLIND PERSONS' RIGHTS ACT**

1. Section 1 of Regulation 83 of Revised Regulations of Ontario, 1980, as amended by section 1 of Ontario Regulation 102/85, is further amended by adding thereto the following item:
12. Canine Vision Canada, Oakville, Ontario.
- (9179) 33

PROVINCIAL OFFENCES ACT

O. Reg. 460/86.
Proceedings Commenced by Certificate
of Offence.
Made—July 31st, 1986.
Filed—August 1st, 1986.

**REGULATION TO AMEND REGULATION 817 OF
REVISED REGULATIONS OF ONTARIO, 1980
MADE UNDER THE
PROVINCIAL OFFENCES ACT**

1. Regulation 817 of Revised Regulations of Ontario, 1980 is amended by adding thereto the following section:
6. Notwithstanding section 2 of Ontario Regulation 460/86, Forms 101, 102 and 103 as they read before the filing of that Regulation may continue to be used. O. Reg. 460/86, s. 1.
2. Forms 101, 102 and 103 of the said Regulation are revoked and the following substituted therefor:

Form 101
Provincial
Offences Act
*Formule 101
Loi sur les
Infractions provinciales.*
PROVINCIAL
OFFENCES COURT
PROVINCE OF ONTARIO
*COUR DES
INFRACTIONS
PROVINCIALES*

CERTIFICATE OF OFFENCE/PROCÈS-VERBAL D'INFRACTION

On the _____ day of _____ 19 _____ Time _____
Le _____ à (heure)

M

NAME _____
NOM _____

ADDRESS _____
ADRESSE _____

DRIVER'S LICENSE NO. NUMÉRO DE PERMIS DE CONDUIRE				CVOR ICVU <input type="checkbox"/>	
BIRTHDATE DATE DE NAISSANCE		PLATE NO. N° D'IMMATRICULATION		PROVINCE	
SEX SEXE	DAY JOUR	MO MOIS	YEAR ANNÉE	MAKE MARQUE	

AT/A _____
(Indiquez l'endroit)

DID COMMIT THE OFFENCE OF VOUS AVEZ COMMIS L'INFRACTION SUIVANTE: _____

CONTRARY TO EN CONTRAVENTION AVEC LES DISPOSITIONS _____

SECTION
DE L'ARTICLE

I believe and certify the above offence has been committed and certify that I served an J'ai la conviction et j'atteste que l'infraction ci-dessus a été commise et je certifie que j'ai signifié un/une OFFENCE NOTICE/SUMMONS personally upon the person charged on the offence date AVIS D'INFRACTION/ASSIGNATION à personne à l'inculpé(e) le jour de l'infraction		
Signature of Issuing Provincial Offences Officer Signature de l'agent des infractions provinciales	Officer no. Agent de police n°	Unit Groupe

Summons issued for/Assignation délivrée pour _____
On the _____ day of _____ next at _____
Le _____ suivant à

M

AT _____
A _____

SET FINE (including costs) \$ _____ (y compris les dépens) AMENDE DÉTERMINÉE	Sec 3(4) Provincial Offences Act/ (Par. 3(4) de la Loi sur les infractions provinciales)	X	Service Acknowledged Accusé de réception de la signification
SIGNATURE OF PERSON CHARGED/SIGNATURE DE L'INCUPLÉ(E)			
C.V.O.R. NUMBER (COMMERCIAL VEHICLES ONLY) NUMÉRO DE L'ICVU (VÉHICULES UTILITAIRES SEULEMENT)			

Form 102
Provincial
Offences Act

Formule 102
Loi sur les
Infractions provinciales.

OFFENCE NOTICE
AVIS D'INFRACTION

PROVINCIAL OFFENCES COURT
PROVINCE OF ONTARIO

COUR DES INFRACTIONS
PROVINCIALES

YOU ARE CHARGED WITH THE FOLLOWING OFFENCE
VOUS ÊTES ACCUSÉ DE L'INFRACTION SUIVANTE

On the Le day of 19 Time à (heure)

M

NAME
NOM

ADDRESS
ADRESSE

DRIVER'S LICENSE NO. NUMÉRO DE PERMIS DE CONDUIRE										CVOR ICVU <input type="checkbox"/>		
SEX SEXE		DATE OF BIRTH DATE DE NAISSANCE		PLATE NO. N° D'IMMATRICULATION		PROVINCE		MAKE MARQUE				
DAY JOUR	MO MOIS	YEAR ANNÉE										

AT/A
(Indiquez
l'endroit)

DID COMMIT THE OFFENCE OF
VOUS AVEZ COMMIS L'INFRACTION
SUIVANTE:

CONTRARY TO
EN CONTRAVENTION AVEC
LES DISPOSITIONS

SECTION
DE L'ARTICLE
AVIS

NOTICE
WITHIN 15 DAYS OF RECEIVING THIS OFFENCE NOTICE YOU MAY CHOOSE ONE OF THE OPTIONS ON THE BACK OF THIS FORM IF YOU DO NOTHING A CONVICTION WILL BE ENTERED AGAINST YOU AND FINE PAYMENT ENFORCEMENT WILL FOLLOW

DANS LES QUINZE JOURS DE LA RECEPTION DU PRÉSENT AVIS, VOUS POUVEZ EXERCER L'UN DES CHOIX QUI SONT INDICUÉS AU VERSO DE CETTE FORMULE SI VOUS NE LE FAITES PAS, VOUS SEREZ DÉCLARÉ COUPABLE ET LE PAIEMENT DE L'AMENDE DEVIENT EXÉCUTOIRE

Signature of Issuing Provincial Offences Officer Signature de l'agent des infractions provinciales	Officer no Agent de police n°	Unit Groupe
---	----------------------------------	----------------

IF YOU PLEAD NOT GUILTY THE TRIAL SHALL BE HELD AT
SI VOUS PLAIDEZ NON COUPABLE, LE PROCÈS SE TIENDRA À
PROVINCIAL OFFENCES COURT/COUR DES INFRACTIONS PROVINCIALES

SET FINE (including costs)
\$ (y compris les dépenses)
AMENDE DÉTERMINÉE:

IF YOU WISH TO PAY THE SET FINE SHOWN, SIGN THE PLEA OF GUILTY ON THE BACK AND FORWARD YOUR PAYMENT AND THIS NOTICE TO THE ADDRESS OF THE COURT SHOWN ON THE BACK OF THIS NOTICE.

SI VOUS DÉSIREZ ACQUITTER L'AMENDE DÉTERMINÉE INDICUÉE ICI, SIGNÉZ LE PLAIDOYER DE CULPABILITÉ AU VERSO ET FAITES PARVENIR LE PAIEMENT DE L'AMENDE ACCOMPAGNÉ DE CET AVIS AU TRIBUNAL DONT L'ADRESSE FIGURE AU VERSO.

PROVINCIAL OFFENCES OFFICERS ARE NOT ALLOWED TO ACCEPT PAYMENT OR DOCUMENTS FOR DELIVERY TO COURT.
LES AGENTS DES INFRACTIONS PROVINCIALES NE SONT PAS AUTORISÉS À ACCEPTER LA REMISE D'UN PAIEMENT OU DE DOCUMENTS POUR LES REMETTRE AU TRIBUNAL.

Date of service if other than offence date
Date de la signification de l'avis si elle diffère de celle de l'infraction

Day Jour	Month Mois	Year Année
-------------	---------------	---------------

IMPORTANT - PLEASE READ CAREFULLY

WITHIN 15 DAYS OF RECEIVING THIS OFFENCE NOTICE choose one of the following options. Complete the selected option (Sign where necessary), and deliver this Offence Notice (and payment where applicable) to the proper court office shown.

If you fail to exercise your choice within the 15 day period, you will be deemed not to wish to dispute the charge, and a Justice shall enter a conviction in your absence.

NOTEZ BIEN - VEUILLEZ LIRE ATTENTIVEMENT CE QUI SUIT

DANS LES QUINZE JOURS DE LA RÉCEPTION DU PRÉSENT AVIS D'INFRACTION, vous pouvez exercer l'un des choix suivants. Remplissez la partie de la formule qui correspond à votre choix (et signez lorsque cela est nécessaire) et remettez l'avis d'infraction (et votre paiement quand il y a lieu) au greffe du tribunal approprié qui y est indiqué.

Si vous n'exercez pas de choix dans les quinze jours de la réception du présent avis, vous serez réputé ne pas vouloir contester l'accusation et un juge vous déclarera coupable en votre absence.

DEFENDANT'S OPTIONS - ONE ONLY
CHOIX DU DÉFENDEUR - UN SEUL CHOIX EST PERMIS

1 Plead guilty: payment out of court. I plead guilty and payment of the set fine is enclosed.

Plaidoyer de culpabilité: paiement à l'amiable. Je plaide coupable et joins à la présente le paiement de l'amende.

MAKE CHEQUE OR MONEY ORDER PAYABLE TO "PROVINCIAL COURT" AND WRITE THE OFFENCE NOTICE NUMBER ON THE CHEQUE

FAIRE UN CHÈQUE OU MANDAT À L'ORDRE DE LA "COUR PROVINCIALE" ET ÉCRIRE LE NUMÉRO D'AVIS D'INFRACTION SUR LE CHÈQUE

Signature/Signature du prévenu

OPTION 1 OR 3/CHOIX 1 OU 3
PROVINCIAL OFFENCES COURT/COUR DES INFRACTIONS PROVINCIALES

OPTION 2 ONLY/CHOIX 2 SEULEMENT
PROVINCIAL OFFENCES COURT/COUR DES INFRACTIONS PROVINCIALES

2 Plead guilty with an explanation: Within 15 days of receiving this notice, attend at the court office shown above within the times and days shown. You must bring this notice with you.

Plaidoyer de culpabilité accompagné d'une explication: Dans les quinze jours de la réception du présent avis, présentez-vous au greffe indiqué ci-dessus, à l'heure et au jour précisés. Veuillez apporter le présent avis avec vous

3 Not guilty plea: I plead not guilty. I will appear at the time and date set for my trial. My mailing address is as shown on the front of this form, unless different information is noted below

Plaidoyer de non-culpabilité: Je plaide non coupable. Je me présenterai à l'heure et à la date fixées pour mon procès. Mon adresse postale est celle indiquée au recto de la présente formule, sauf indication contraire ci-dessous.

DELIVER SIGNED FORM TO THE ADDRESS
 INDICATED BY THE ARROW
 REMETTRE LA FORMULE SIGNÉE À L'ADRESSE
 INDICUÉE PAR LA FLECHE

Signature/Signature du prévenu

I As a person who speaks the French language, I wish the trial to be held before a justice who speaks both English and French as provided by law.
 Je parle français, et je désire que le procès ait lieu devant un juge qui parle anglais et français tel que le loi m'en donne le droit.



CHANGE OF NAME OR ADDRESS/CHANGEMENT DE NOM OU D'ADRESSE

NAME/NOM

ADDRESS/ADRESSE

Form 103.
Provincial
Offences Act

Formule 103
Loi sur les
infractions provinciales.

SUMMONS/ASSIGNATION

PROVINCIAL
OFFENCES COURT
PROVINCE OF ONTARIO

COUR DES
INFRACTIONS
PROVINCIALES

YOU ARE CHARGED WITH THE FOLLOWING OFFENCE
VOUS ÊTES ACCUSÉ DE L'INFRACTION SUIVANTE

On the day of 19 Time
Le à (heure)

M

NAME
NOM

ADDRESS
ADRESSE

DRIVER'S LICENSE NO.				NUMERO DE PERMIS DE CONDUIRE				CVOR ICVU <input type="checkbox"/>	
SEX SEXE	DAY JOUR	BIRTHDATE DATE DE NAISSANCE MOIS	YEAR ANNEE	PLATE NO. N° D'IMMATRICULATION	PROVINCE			MAKE MARQUE	

AT/A
(indiquez
l'endroit)

DID COMMIT THE OFFENCE OF
VOUS AVEZ COMMIS L'INFRACTION
SUIVANTE:

CONTRARY TO
EN CONTRAVENTION AVEC
LES DISPOSITIONS

SECTION
DE L'ARTICLE

THIS IS THEREFORE TO COMMAND YOU IN HER
MAJESTY'S NAME TO APPEAR BEFORE THE
PROVINCIAL OFFENCES COURT.

EN CONSEQUENCE, CETTE ASSIGNATION VOUS
ORDONNE AU NOM DE SA MAJESTE DE
COMPARAITRE DEVANT LA COUR DES INFRACTIONS
PROVINCIALES.

Officer no Agent de police n°	Unit Groupe
----------------------------------	----------------

On the day of next at
Le suivant à

M

AT
A
Provincial Offences Court/Cour des infractions provinciales

AND TO ATTEND THEREAFTER AS REQUIRED BY THE COURT IN ORDER TO BE DEALT WITH
ACCORDING TO LAW.

ET D'Y ÊTRE PRESENT PAR LA SUITE LORSQUE LE TRIBUNAL L'EXIGERA, DE FAÇON À ÊTRE
TRAITE SELON LA LOI.

THIS SUMMONS IS SERVED
UNDER PART 1 OF THE
PROVINCIAL OFFENCES
ACT.

CETTE ASSIGNATION VOUS
EST SIGNIFIEE AUX
TERMES DE LA PARTIE I DE
LA LOI SUR LES INFRACTIONS
PROVINCIALES.

SIGNATURE OF PROVINCIAL OFFENCES OFFICER
SIGNATURE DE L'AGENT DES INFRACTIONS PROVINCIALES

PUBLIC HOSPITALS ACT

O. Reg. 461/86.

Special Grants—Management of
Biomedical Waste.

Made—July 18th, 1986.

Approved—July 31st, 1986.

Filed—August 1st, 1986.

REGULATION MADE UNDER THE
PUBLIC HOSPITALS ACT

SPECIAL GRANTS—MANAGEMENT OF
BIOMEDICAL WASTE

1. The Minister may pay special grants as provincial aid to public hospitals in Ontario for the purpose of replacing or renovating incinerators that are used to incinerate biomedical waste. O. Reg. 461/86, s. 1.

2. A special grant made to a hospital under section 1 shall be equal to 100 per cent of the project cost less any amount paid by the hospital towards the cost of the replacement or renovation of the incinerator and may be paid as a lump sum or in instalments. O. Reg. 461/86, s. 2.

MURRAY ELSTON
Minister of Health

Dated at Toronto, this 18th day of July, 1986.

(9181) 33

MINISTRY OF HEALTH ACT

O. Reg. 462/86.

Grants to Accredited Nursing Homes.

Made—July 23rd, 1986.

Approved—July 31st, 1986.

Filed—August 1st, 1986.

REGULATION MADE UNDER THE
MINISTRY OF HEALTH ACT

GRANTS TO ACCREDITED NURSING HOMES

1. In this Regulation,

“accredited nursing home” means a nursing home that is accredited by the Canadian Council on Hospital Accreditation;

“extended care resident” means an extended care resident within the meaning of Regulation 690 of Revised Regulations of Ontario, 1980 (General);

“nursing home” means a nursing home that is licensed under the *Nursing Homes Act*. O. Reg. 462/86, s. 1.

2. The Minister may pay an annual grant to an accredited nursing home. O. Reg. 462/86, s. 2.

3. An annual grant to an accredited nursing home shall be calculated by multiplying, for each day that the nursing home is an accredited nursing home, 26 cents times the number of beds that are occupied by extended care residents. O. Reg. 462/86, s. 3.

MURRAY ELSTON
Minister of Health

Dated at Toronto, this 23rd day of July, 1986.

(9182) 33

ELEVATING DEVICES ACT

O. Reg. 463/86.

General.

Made—July 31st, 1986.

Filed—August 1st, 1986.

REGULATION TO AMEND
ONTARIO REGULATION 229/81
MADE UNDER THE
ELEVATING DEVICES ACT

1. Subsection 1 (1) of Ontario Regulation 229/81 is amended by adding thereto the following paragraph:

12a. “freight elevator—E” means a freight elevator upon which employees of the owner of the elevator are permitted to ride as passengers;

2. Paragraph 1 of section 2 of the said Regulation is amended by adding thereto the following subparagraph:

(aa) freight elevators—E;

3. Section 3 of the said Regulation is amended by adding thereto the following subsection:

(3) Where a provision of a code referred to in this Regulation is inconsistent with a provision of the Act or this Regulation the provision of the Act or this Regulation shall prevail. O. Reg. 463/86, s. 3.

4. Section 13 of the said Regulation is revoked and the following substituted therefor:

13.—(1) Every contractor that maintains an elevating device shall submit annually to the Ministry a list that contains data on the installation numbers,

class and location of each elevating device that is maintained by the contractor together with information that indicates the scope of each maintenance contract.

(2) The list referred to in subsection (1) shall be based on the actual status at the end of the fifteenth day of January for the year to which the list relates and shall be submitted not later than the 28th day of February next following. O. Reg. 463/86, s. 4.

5. Subsection 15 (1) of the said Regulation is revoked and the following substituted therefor:

(1) A contractor who installs or alters an elevating device shall, after the contractor has carried out a preliminary examination and is satisfied that all work is completed in accordance with the registered design submission and that the installation or alteration complies with the requirements of the Act and the regulations, notify the Director in a form provided by the Director that such is the case and arrange for an initial inspection of the elevating device. O. Reg. 463/86, s. 5.

6. Section 34 of the said Regulation is revoked and the following substituted therefor:

34.—(1) The welding of a steel structure on an elevating device shall meet the requirements of CSA Standard W59-1984, Welded Steel Construction (Metal Arc Welding).

(2) The welding of a steel structure on an elevating device shall be undertaken by a fabricator or contractor qualified to the requirements of CSA Standard W47.1-1983, Certification of Companies for Fusion Welding of Steel Structures.

(3) The field welding of piping and fittings on an elevating device shall meet the requirements of CSA Standard B51-M1981, Code for the Construction and Inspection of Boilers and Pressure Vessels. O. Reg. 463/86, s. 6.

7. Section 37 of the said Regulation is revoked and the following substituted therefor:

37.—(1) Every elevator, dumbwaiter, escalator, moving walk and freight platform lift shall meet the requirements of National Standard of Canada CAN3-B44-M85: Safety Code for elevators.

(2) For the purpose of this Regulation, in National Standard of Canada CAN3-B44-M85, "rated load" means "maximum capacity". O. Reg. 463/86, s. 7.

8. Section 38 of the said Regulation is revoked and the following substituted therefor:

38. Notwithstanding subsection 3 (2), rope clip fastenings shall not be used when suspension ropes are changed on an existing elevator. O. Reg. 463/86, s. 8.

9. Section 40 of the said Regulation, as remade by section 3 of Ontario Regulation 803/82, is revoked and the following substituted therefor:

40.—(1) Notwithstanding subsection 3 (2), every passenger elevator and freight elevator shall meet the requirements of clauses 3.7, 3.8, 3.10.8 and 3.12.2.17 of the code referred to in subsection 37 (1).

(2) Freight elevators installed before the 1st day of May, 1981 that do not meet the requirements of clause 2.12.2 or 2.12.3 shall meet the requirements of clause 2.12.3. O. Reg. 463/86, s. 9.

10. The said Regulation is amended by adding thereto the following sections:

45a. Where the maximum bottom counterweight runby is restricted in an elevator design submission to less than 900mm, the following sign, with letters at least 25mm in height, shall be attached to or printed on the hoistway wall in the vicinity of the counterweight buffers of the elevator: "Warning maximum bottom counterweight runby is". O. Reg. 463/86, s. 10, *part*.

45b. Notwithstanding subsection 3 (2), every escalator that does not meet the requirements of clause 8.10 of the code referred to in subsection 37 (1) shall, before the 1st day of January, 1987, be fitted with a caution sign that meets the requirements of clause 8.10 of that code. O. Reg. 463/86, s. 10, *part*.

11. Section 46 of the said Regulation is revoked and the following substituted therefor:

46. Every manlift shall meet the requirements of CSA Standard B311-M1979, Safety Code for Manlifts and Supplement No. 1-1984 to the said code. O. Reg. 463/86, s. 11.

12. Section 49 of the said Regulation is revoked and the following substituted therefor:

49. Every passenger ropeway shall meet the requirements of National Standard of Canada CAN3-Z98-M78 Passenger Ropeways and Supplement No. 1-1984 to the said standard. O. Reg. 463/86, s. 12.

13. Subsection 55 (3) of the said Regulation is revoked and the following substituted therefor:

(3) Where a platform carrier referred to in clause 55 (1) (c) is affixed to a lift line by means of rope grips

that use friction as a gripping method, clamping devices shall be installed in front and behind the grip of the platform carrier.

(4) A clamping device referred to in subsection (3) shall be so designed so as not to cause any damage to the hauling rope sheave, bull-wheel or the liners of the sheave or bull-wheel. O. Reg. 463/86, s. 13.

14. Section 58 of the said Regulation is revoked and the following substituted therefor:

58.—(1) Every construction hoist shall be so designed that the car movement in both the up and down directions is continuously controlled by power.

(2) A material construction hoist that is equipped with a broken-rope type safety shall not be licenced unless a type test indicates that the safety is capable of stopping the car when it is free falling with its rated load.

(3) Subsection (1) does not apply to a hoist that is equipped with a load-carrying unit in the form of a bucket. O. Reg. 463/86, s. 14.

15. Section 61 of the said Regulation is revoked.

16. Sections 61a, 61b, 61c, 61e, 61f and 61g of the said Regulation, as made by section 7 of Ontario Regulation 803/82, are revoked and the following substituted therefor:

61a. Every elevating device for the handicapped shall comply with National Standard of Canada CAN3-B355-M81, Safety Code for Elevating Devices for the Handicapped. O. Reg. 463/86, s. 16, *part*.

61b.—(1) Every owner of a vertical platform lift—Type D and every owner of a stair platform lift—Type D or stairchair lift shall ensure that the public does not have access to the area where the lift is installed while the lift is in operation.

(2) Subsection (1) does not apply in the case of a stair platform lift—Type D or stairchair lift where,

(a) the owner of the lift is able to control and identify persons who will be using the lift or the area where the lift is installed and the owner familiarizes those persons in advance of using the area or lift with the safety rules and procedures concerning the use of the area and the lift; and

(b) the lift meets the requirements of section 61f. O. Reg. 463/86, s. 16, *part*.

61c. The owner of an elevating device for the handicapped shall ensure that,

(a) the device is used primarily for the transportation of handicapped persons;

(b) the operation of the device is restricted to attendants designated by the owner or those persons who in the opinion of the owner are able to use the device without an attendant; and

(c) the persons using the device receive instruction and training that emphasizes the hazards associated with improper use of the device. O. Reg. 463/86, s. 16, *part*.

61e. Every owner of an elevating device for the handicapped that serves a building or part thereof that may be frequented by persons not previously designated by the owner shall,

(a) establish a procedure that will enable a handicapped person to gain access to and use the device; and

(b) ensure that an attendant is available to operate the device when a handicapped person not designated by the owner under clause 61c (b) requires use of the device. O. Reg. 463/86, s. 16, *part*.

61f. Where a stair platform lift—Type D or stairchair lift is being operated at the same time that other persons are using the area in which the lift is installed,

(a) audio-visual signals shall be emitted that can be heard by persons using the lift and by persons in the area where the lift is installed until the lift is parked in a safe position at a terminal; and

(b) every leading edge or surface of that portion of the lift and its carriage that carries the passengers in both directions of travel shall be equipped with sensitive devices that meet the requirements of clause 7.5.4 of the code referred to in section 61a and that are operational whenever the carriage is in motion. O. Reg. 463/86, s. 16, *part*.

61g.—(1) A person shall only operate a vertical platform lift—Type D, a stair platform lift—Type D or a stairchair lift if the person is satisfied that only persons using the lift have access to the area where the lift is installed.

(2) Subsection (1) does not apply to a person operating a stair platform lift—Type D or a stairchair lift while other persons are using the area in which the lift is installed where,

(a) the conditions set out in subsection 61b (2) exist;

(b) the person operating the lift is an attendant and has while operating the lift in the folded down position, a clear view of the lift runway in the direction of its movement by walking along with the carriage while it is in motion or has by being stationed at a point, a clear view of the runway;

(c) the person using the lift has while using the lift a clear view of the lift runway in the direction of travel; and

(d) the audio-visual signals required under clause 61f (a) are operational. O. Reg. 463/86, s. 16, *part*.

17. Subsections 61h (2) and (3) of the said Regulation, as made by section 7 of Ontario Regulation 803/82, are revoked and the following substituted therefor:

(2) The procedure required under clause 61e (a) shall be posted in the form of a notice at the entrance to the building to which it applies or, where the elevating

device is readily accessible, at the location of the elevating device.

(3) Where an attendant is required for an elevating device under clause 61e (b) and an attendant is not permanently stationed at the location of the elevating device, a notice shall be posted at the entrance to the elevating device that indicates the procedure to be followed to obtain assistance.

(4) Where subsection 61g (2) applies, a notice shall be posted at the entrance to the elevating device that cautions the user to observe the lift runway for possible obstructions.

(5) The notice referred to in subsection (4) shall where a full view of the entire lift runway is restricted indicate that the operation of a folded down carriage is not permitted. O. Reg. 463/86, s. 17.

18. Table 1, Table 2 and Table 3 of the said Regulation, as amended by section 8 of Ontario Regulation 803/82, are revoked and the following substituted therefor:

TABLE 1

FEES

ITEM	COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
		Initial Inspection	Other Inspection	Design Submission For New Installation and Major Alteration
1.	Elevator (except as in Item 6 (b))			
	(a) Basic-serving ten floors or less	\$125	\$ 65	\$125
	(b) Plus for each additional floor served exceeding ten floors	12	6	
2.	Construction Hoist			
	(a) Basic-ten entrances or less and 30 m of mast or tower	125	65	100
	(b) Plus for each additional 3m or part thereof of mast or tower	1	1	
	(c) Plus for each entrance over ten entrances	5	5	
3.	(a) Escalator			
	(b) Dumbwaiter			
	(c) Moving Walk			
	(d) Manlift			
	(e) Rope Tow			
	(f) Freight Platform Lift			
	(g) Stage Lift (per section)	100	65	100
4.	Elevating Devices for the Handicapped	30	30	35
5.	(a) Chair Lift—up to and including 10 towers; plus item 7			
	(b) Gondola Lift—up to and including 10 towers; plus item 7			
	(c) Reversible Ropeway—up to and including 10 towers; plus item 7			
	(d) Funicular Railway—up to and including 10 towers; plus item 7	375	185	200
6.	(a) Bar Lift—up to and including 10 towers; plus item 7			
	(b) Inclined Elevator	185	100	125

ITEM	COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
		Initial Inspection	Other Inspection	Design Submission For New Installation and Major Alteration
7.	For each tower in excess of 10 towers	\$20	\$10	
8.	Special installation—except for Column 4, per man hour (minimum two hours) (see Note 1)	50	50	
NOTES: 1. The fee in Column 4 is the complete fee				

O. Reg. 463/86, s. 18, *part.*

TABLE 2

FEES

ITEM	COLUMN 1	COLUMN 2
1.	Licence	
	(a) Initial	\$ 50
	(b) Renewal or duplicate	25
	(c) Transfer	25
2.	Installation plate—duplicate (see subsection 21 (5))	25
3.	Registration of a design submission for,	
	(a) Revision, subsequent to initial registration, for one elevating device	35
	(b) Standard design submission	
	(i) New	300
	(ii) Revised	75
	(c) A minor alteration, for one elevating device	35
4.	Copy of an inspection report or other document	15
5.	Inspection status summary (covering up to 6 devices at one location)	30
6.	Excess time charge for delaying or prolonging inspection (for each man hour, minimum one hour)	50

O. Reg. 463/86, s. 18, *part.*

TABLE 3

FEES—CONTRACTOR'S REGISTRATION

ITEM	COLUMN 1	COLUMN 2 Initial	COLUMN 3 Annual
1.	Elevators	\$400	\$200
2.	Construction Hoists	400	200
3.	Any Class other than Elevators or Construction Hoists, each class	150	75
4.	Limited Scope (see Note 1)	-	
	(a) Limited maintenance or installation or both each class	150	75
	(b) Limited to testing by consultants regardless of number of classes	300	300
5.	Plus—for each mechanic, mechanic in training and supervisor employed in the previous year (this does not include registrations under item 6)		15
6.	Maintenance by owner for each maintained elevating device, up to maximum as in items 1, 2 and 3 (see Note 2)	15	15
NOTES: 1. A contractor's registration is limited in scope when it is limited to specific functions. 2. Where registration is limited to the maintenance of elevating devices that are under contractor's ownership.			

O. Reg. 463/86, s. 18, *part.*

19. This Regulation comes into force on the 1st day of August, 1986.

Publications Under The Regulations Act

August 23rd, 1986

TEACHERS' SUPERANNUATION ACT

O. Reg. 464/86.

General.

Made—July 31st, 1986.

Filed—August 5th, 1986.

REGULATION TO AMEND ONTARIO REGULATION 423/84 MADE UNDER THE TEACHERS' SUPERANNUATION ACT, 1983

- 1.—(1) Paragraph 42 of section 21 of Ontario Regulation 423/84 is revoked and the following substituted therefor:

42. St. Joseph-Scollard Hall, North Bay.

- (2) Paragraph 76 of the said section 21 of the said Regulation is revoked and the following substituted therefor:

76. Erie Christian Academy, Fort Erie.

- (3) Section 21 of the said Regulation, as amended by section 2 of Ontario Regulation 430/85 and section 1 of Ontario Regulation 540/85, is further amended by adding thereto the following paragraphs:

121. Lakeview Elementary School, West Bay.

122. Quest Centre, Whitby.

(9184)

34

PARKWAY BELT PLANNING AND DEVELOPMENT ACT

O. Reg. 465/86.

The Regional Municipality of York,
Town of Markham.

Made—August 1st, 1986.

Filed—August 5th, 1986.

REGULATION TO AMEND ONTARIO REGULATION 473/73 MADE UNDER THE PARKWAY BELT PLANNING AND DEVELOPMENT ACT

1. Section 70 of Ontario Regulation 473/73, as made by section 1 of Ontario Regulation 586/85, is revoked and the following substituted therefor:

70.—(1) The building existing on the land described in subsection (2) on the day this section comes into force may be extended provided that the extension does not exceed 380 square metres.

(2) Subsection (1) applies to that parcel of land in the Town of Markham in The Regional Municipality of York, being those parts of lots 6 and 7 in Concession IV described as Part 2 on a Plan deposited as Number 64R-7746. O. Reg. 465/86, s. 1.

L. J. FINCHAM

Director

Plans Administration Branch

Central and Southwest

Ministry of Municipal Affairs

Dated at Toronto, this 1st day of August, 1986.

(9185)

34

FORESTRY ACT

O. Reg. 466/86.

Nurseries.

Made—July 24th, 1986.

Filed—August 5th, 1986.

REGULATION TO AMEND REGULATION 397 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE FORESTRY ACT

1. Section 6 of Regulation 397 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 514/84, is revoked and the following substituted therefor:

6. The charges to be made for nursery stock at a nursery are \$10 plus 5.0 cents for each unit except for stock made available under an approved participatory forest research program, in which case the charges are \$25 for twenty-five units. O. Reg. 466/86, s. 1.

(9186)

34

BRANTFORD-BRANT ANNEXATION
ACT, 1980

O. Reg. 467/86.
Order of the Minister—Transitional
Mill Rates—1986.
Made—August 5th, 1986.
Filed—August 7th, 1986.

ORDER MADE UNDER THE
BRANTFORD-BRANT ANNEXATION
ACT, 1980

ORDER

1. Under section 9 of the *Brantford-Brant Annexation Act, 1980*,

IT IS ORDERED THAT:

1. The Council of the City shall impose and levy on the whole of the annexed area, for the year 1986, rates of taxation for general purposes and rates and charges for special purposes that are different than the rates of taxation for general purposes and rates and charges for special purposes that are levied on the whole of the remainder of the City.
2. The rates of taxation for general purposes and the rates and charges for special purposes to be levied by the Council of the City, for the year 1986, on the whole of the annexed area shall be levied and imposed on the basis of the mill rates as set out in the Schedule hereto.
3. The amounts ascertained by multiplying the mill rates specified in this Order by the assessment for the annexed area shall be included in the sums adopted by the City of Brantford in accordance with section 164 of the *Municipal Act*. O. Reg. 467/86, s. 1.

Schedule

MILL RATE ADJUSTMENTS—1986

FOR GENERAL PURPOSES	ASSESSMENTS	MILL RATES
Taxable Properties		
— Industrial/Commercial	5,452,283	119.89
— Residential/Farm	7,520,248	101.91
Properties Paying Grants In Lieu of Taxation		
— Provincial Government and Its Agencies		
Industrial/Commercial	32,873	119.89
Local Municipalities and Their Agencies		
— Industrial/Commercial	1,377	119.89
For Special Service Areas		
— Water	10,299,497	.80
— Streetlighting	9,767,380	.44

O. Reg. 467/86, Sched.

ALVIN CURLING
for Minister of Municipal Affairs

Dated at Toronto, this 5th day of August, 1986.

WORKERS' COMPENSATION ACT

O. Reg. 468/86.

Pension Plan.

Made—April 21st, 1986.

Approved—July 24th, 1986.

Filed—August 8th, 1986.

**REGULATION TO AMEND
REGULATION 952 OF
REVISED REGULATIONS OF
ONTARIO, 1980
MADE UNDER THE
WORKERS' COMPENSATION ACT**

1. Section 1 of Regulation 952 of Revised Regulations of Ontario, 1980 is revoked and the following substituted therefor:

1. In this section,

"actuary" means an actuary who is a Fellow of the Canadian Institute of Actuaries and who is appointed the actuary of the plan by the Board;

"child" includes a step-child;

"commissioner" means a full-time member of the board of directors of the Board;

"date of the plan" means the 1st day of July, 1940, but in respect of persons deemed employees of the Board under subsection 74 (3) of the Act, means the 1st day of January, 1951, except those persons added by paragraph 6 of section 3, for whom it means the 1st day of January, 1959, and those persons added by paragraph 8 of section 3, for whom it means the 1st day of January, 1973;

"fund" means the Workers' Compensation Board Superannuation Fund established under the Act;

"long term disability plan" means a benefit plan intended to provide income protection if long term disability occurs and offered or provided by the Board to a member of the superannuation plan while the member is a commissioner or employee of the Board;

"new employee" means a full-time employee in a permanent position or a commissioner who enters the service of the Board or is appointed as a commissioner on or after the date of the plan;

"pension" includes superannuation or disability allowance other than a benefit under a long term disability plan;

"present employee" means a full-time employee in a permanent position or a commissioner who was in

the service of the Board or was appointed as commissioner at the date of the plan;

"spouse" means either of a man or woman who, at the time of death of the one who was the member, were cohabiting and,

(a) were married to each other, or

(b) not being married, had been living with each other immediately preceding the death,

(i) in a conjugal relationship of at least three year's duration, or

(ii) in a relationship of some permanence where there is a child born of whom the man and the woman are the natural parents. O. Reg. 468/86, s. 1.

2. Subsection 2 (2) of the said Regulation is revoked and the following substituted therefor:

(2) Every new employee on appointment to a permanent position or on attainment of eighteen years of age, if later, is eligible to become and is from that date a member of the plan. O. Reg. 468/86, s. 2.

3.—(1) Subsection 4 (2) of the said Regulation is amended by striking out "subsection (1)" in the first and second lines and inserting in lieu thereof "subsections (1) and (3b)".

(2) Section 4 of the said Regulation is amended by adding thereto the following subsections:

(3a) Where a member has qualified for benefits under a long term disability plan in respect of a disability incurred on or after the 1st day of October, 1974, a contribution shall be made to the fund by the Board on behalf of the member for each month or part thereof in respect of which the member continues to qualify for the long term disability benefits.

(3b) The amount of the contribution referred to in subsection (3a) shall be calculated at the contribution percentage of the salary of the member at the time the member qualified for benefits under the long term disability plan.

(3c) A contribution referred to in subsection (3a) shall be increased at the time a percentage increase is given under section 25 with respect to a pension under the superannuation plan and the increase shall equal the percentage increase set out in that section. O. Reg. 468/86, s. 3 (2).

4.—(1) Section 7 of the said Regulation is amended by adding thereto the following subsection:

(1a) For the purposes of subsection (1), where the member retiring is receiving benefits under a long term disability plan, the average annual salary of the member shall be the annual salary of the member at the time the member qualified for the long term disability benefits, increased by the percentage increases given under section 25 with respect to a pension under the superannuation plan, calculated on a cumulative basis. O. Reg. 468/86, s. 4 (1).

(2) The said section 7 is further amended by adding thereto the following subsections:

(9) A member who is contributing to the plan or a member who is entitled to, but who is not receiving, a deferred pension under the plan may direct the Board to increase the amount of the survivor's pension payable under section 12 from the 50 per cent otherwise payable, to such higher percentage of the member's pension or deferred pension, as the member may direct.

(10) A direction under subsection (9) must be in writing and must be delivered to the Board at least two years before the member begins receiving a pension under the plan.

(11) Notwithstanding subsection (10), the Board shall accept a direction under subsection (9) delivered to it less than two years before the member begins receiving a pension under the plan if the member gives the Board medical evidence that satisfies the Board that the member is in good health.

(12) Where a direction is delivered under subsection (10) or accepted under subsection (11), the amount of the pension or deferred pension of the member shall be actuarially reduced by the actuary to allow for the survivor pension in accordance with the direction, and the amount of the survivor pension related to the allowance or pension or deferred pension shall be increased in accordance with the direction.

(13) A member may revoke a direction under subsection (9) at any time before receiving a pension by delivering to the Board a written notice of the revocation.

(14) Where there is a direction under subsection (9), the amount of pension payable in aggregate to or on behalf of survivors of a member shall not exceed the amount of pension that would have been payable had the direction not been made. O. Reg. 468/86, s. 4 (2).

5.—(1) Subsection 10 (1) of the said Regulation is amended by striking out "five" in the first line and inserting in lieu thereof "two".

(2) Subsection 10 (3) of the said Regulation is revoked and the following substituted therefor:

(3) This section does not apply if a direction may be made under subsection 7 (9). O. Reg. 468/86, s. 5 (2).

6. Sections 11 and 12 of the said Regulation are revoked and the following substituted therefor:

DEATH IN SERVICE

11.—(1) Where a member who has completed at least ten years service dies while in the service of the Board or is a commissioner and,

(a) leaves a spouse, the spouse is entitled to an annual pension payable in equal monthly instalments for life and in the event that the spouse subsequently dies leaving a dependent child or children of the member under eighteen years of age, the spouse's pension shall continue to be payable to the child or children, or to the person who stands *in loco parentis* to the child or children, so long as the child or children is or are under eighteen years of age; or

(b) leaves no spouse but leaves a dependent child or children under eighteen years of age, the amount of the annual pension payable to the spouse had the spouse survived shall be payable in equal monthly instalments to the child or children under eighteen years of age or to the person who then stands *in loco parentis* to the child or children, so long as the child or children is or are under eighteen years of age.

(2) For the purpose of calculating the amount of pension under subsection (1), the member as of the date of death shall be regarded as having attained normal retirement age and the total amount of the pension shall be 50 per cent of the pension calculated in accordance with section 7.

(3) Where all pension payments payable under subsection (1) cease and the aggregate of such payments is less than the aggregate of the member's contributions but not those made by the Board on the member's behalf, with interest up to the date of death at rates as declared by the Board from time to time, compounded yearly, the spouse or the surviving children or the estate of the member shall be entitled to a residual amount equal to the difference.

(4) Where a member dies while in the service of the Board or as a commissioner leaving neither a spouse nor any dependent child under eighteen years of age, the aggregate contributions made by the member but not those made by the Board on the member's behalf, with interest up to the date of death, at rates as declared by the Board from time to time, compounded yearly, shall be paid to the member's estate. O. Reg. 468/86, s. 6, *part*.

DEATH AFTER RETIREMENT

12.—(1) Where a member dies after retirement on pension and,

(a) leaves a spouse who would also have been the member's spouse had the member died at the time of retirement, the spouse is entitled to an annual pension payable in equal monthly instalments for life and in the event that the spouse subsequently dies leaving a dependent child or children of the member under eighteen years of age, the spouse's pension shall continue to be payable to the child or children or to the person who stands *in loco parentis* to the child or children so long as the child or children is or are under eighteen years of age; or

(b) leaves no spouse but leaves a dependent child or children under eighteen years of age, the amount of the annual pension payable to the spouse had the spouse survived shall be payable in equal monthly instalments to the child or children under eighteen years of age or to the person who stands *in loco parentis* to the child or children so long as the child or children is or are under eighteen years of age.

(2) For the purpose of calculating the amount of pension under subsection (1), the amount of the pension payable shall be 50 per cent of the pension calculated in accordance with section 7 or such other percentage as is directed under that section.

(3) Where all pension payments payable under subsection (1) cease and the aggregate of such payments and those to the retired member up to the date of death including any lump sum the member may have received under subsection 13 (5) are less than the aggregate of the member's contributions, exclusive of those made by the Board on the member's behalf, with interest up to the date of retirement at rates as declared by the Board from time to time, compounded yearly, the spouse, the surviving children or the estate of the last recipient dependant or if there is no dependant, the estate of the member shall be entitled to a residual amount equal to the difference.

(4) Where a member dies after retirement on pension leaving neither a spouse nor any dependent child under eighteen years of age, the excess, if any, of the aggregate contributions made by the member but not those made by the Board on the member's behalf, with interest up to the date of retirement at rates as declared by the Board from time to time, compounded yearly, over the total pension payments made to the member shall be paid to the member's estate.

(5) On death after retirement on pension where the member has made an approved and effective election under section 10, no refund or contribution or other benefit shall be paid unless it was provided for, in writing, under the terms of the approved optional pension. O. Reg. 468/86, s. 6, *part*.

7. Subsections 13 (6), (7) and (8) of the said Regulation are revoked and the following substituted therefor:

(6) Where a member who is entitled to a vested deferred pension in accordance with this section or is in receipt of a pension under the Plan dies and,

(a) leaves a spouse, the spouse is entitled to an annual pension payable in equal monthly instalments for life and in the event that the spouse subsequently dies leaving a dependent child or children of the member under eighteen years of age, the spouse's pension shall continue to be payable to the child or children or to the person who stands *in loco parentis* to the child or children so long as the child or children is or are under eighteen years of age; or

(b) leaves no spouse but leaves a dependent child or children under eighteen years of age, the amount of the annual pension payable to the spouse had the spouse survived shall be payable in equal monthly instalments to the child or children under eighteen years of age or to the person who stands *in loco parentis* so long as the child or children is or are under eighteen years of age.

(7) For the purpose of calculating the amount of pension under subsection (6), reference shall be made to subsection (2) and 50 per cent, or such percentage as is directed under section 7, of the pension otherwise payable to the member under subsection (2) shall be the total amount of annual pension payable to the member's survivors.

(8) Where a member who is entitled to a vested deferred pension in accordance with this section dies before attaining normal retirement age leaving neither a spouse nor a dependent child under eighteen years of age, the aggregate contributions made by the member but not those made by the Board on the member's behalf, less any lump sum refund, if any, the member may have received under subsections (3) and (5), with interest to the date of death, at rates as declared by the Board from time to time, compounded yearly, shall be paid to the member's estate. O. Reg. 468/86, s. 7.

8.—(1) Subsection 15 (1) of the said Regulation is revoked and the following substituted therefor:

(1) An employee who on termination of employment with the Board next becomes employed by,

(a) the civil service of Canada or of any province of Canada;

(b) the civic service of any municipality in Ontario;

- (c) any board, commission or public institution established under any Act of the Legislature of Ontario;
- (d) any Crown corporation of Canada or of any province of Canada;
- (e) any university in Ontario or any college of applied arts and technology to which the *Ministry of Colleges and Universities Act*, applies;
- (f) the Canadian Forces;
- (g) a religious denomination as a clergyman in any province of Canada having been a chaplain in the public service of Ontario; or
- (h) any of the following that is designated by the Board,
 - (i) any Government related agency,
 - (ii) any public institution that is assisted by money appropriated by the Legislature, or
 - (iii) any corporation, the controlling interest of which is owned by the Crown in right of Ontario or whose bonds or debentures are guaranteed by the Crown in right of Ontario,

may elect, in lieu of the other benefits provided under the plan, to leave the employee's refundable contributions in the fund, and in that event, all benefits that had accrued under the plan with respect to service up to the termination of employment remain fully vested to the employee's credit so long as the employee is employed by any such employer including benefits to a surviving spouse, if any, who also would have been the employee's spouse had the employee died at the time of the termination of employment. O. Reg. 468/86, s. 8 (1).

(2) Subsection 15 (5) of the said Regulation is amended by striking out "such period as the Board may fix" in the first and second lines and inserting in lieu thereof "three months".

(3) Section 15 of the said Regulation is amended by adding thereto the following subsection:

(9) For the purposes of this section, "employee" includes a commissioner. O. Reg. 468/86, s. 8 (3).

9. The said Regulation is amended by adding thereto the following sections:

15a. An employee who, on termination of employment with the Board, becomes employed by an

employer who has a registered pension plan may request a transfer of the employee's refundable contributions to such employer's plan, if the employer's plan permits such transfers, and the amount transferred shall include interest up to the date of termination of employment at rates as declared by the Board from time to time, compounded yearly. O. Reg. 468/86, s. 9, *part*.

15b. Where more than one person is entitled to a survivor pension as a surviving spouse of a member, the amount of pension payable in aggregate to or on behalf of the spouses shall not exceed the amount of pension that would have been payable had there been only one spouse. O. Reg. 468/86, s. 9, *part*.

15c. A pension payable to or on behalf of a child under eighteen years of age as a surviving child of a member ceases when the child attains that age or dies and if there is or are any other child or children of the member under that age at that time the child's share accrues to the child or children remaining under that age. O. Reg. 468/86, s. 9, *part*.

10. Subsection 17 (1) of the said Regulation is revoked and the following substituted therefor:

(1) The Board shall pay from the fund, monthly, the pension to which a retired member is entitled under the plan.

(1a) Subsection (1) does not apply if a lump sum payment has been made under section 16. O. Reg. 468/86, s. 10.

11. Sections 22 and 23 of the said Regulation are revoked.

WORKERS' COMPENSATION BOARD:

ROBERT G. ELGIE
Chairman

HAZEL B. McDONALD
Acting Secretary

Dated at Toronto, this 21st day of April, 1986.

(9209)

34

PLANNING ACT, 1983

O. Reg. 469/86.

Restricted Areas—County of Ontario (now The Regional Municipality of Durham), Township of Pickering (now the Town of Pickering).

Made—August 1st, 1986.

Filed—August 8th, 1986.

**REGULATION TO AMEND
ONTARIO REGULATION 102/72
MADE UNDER THE
PLANNING ACT, 1983**

**1. Ontario Regulation 102/72 is amended
by adding thereto the following section:**

61.—(1) A single-family dwelling and buildings and structures accessory thereto may be erected and used on the land described in subsection (2) if the following requirements are met:

Minimum front yard	9 metres
Minimum side yards	2.4 metres
Minimum rear yard	9 metres
Minimum floor area of single-family dwelling	95 square metres
Maximum lot coverage	20 per cent

(2) Subsection (1) applies to that parcel of land in the Town of Pickering in The Regional Municipality of Durham, being those parts of lots 11 and 12 in Concession V more particularly described as follows:

Premising that the bearing of the north limit of Lot 11 is north 73° 04' east and relating all bearings used herein thereto;

Commencing at a point in the fence marking the existing limit between lots 11 and 12, distant southerly therein 564.5 feet from the northwest angle of Lot 11;

Thence north 72° 21' 30" east a distance of 170 feet;

Thence south 19° 19' east a distance of 150 feet;

Thence south 72° 21' 30" west to a point in the east limit of a travelled road a distance of 225.98 feet, more or less;

Thence north 26° 52' west along said east limit of travelled road a distance of 59.96 feet;

Thence north 19° 19' west to a point of intersection with a line drawn on a bearing of south 72° 21' 30" west through the said point of commencement a distance of 90.56 feet, more or less;

Thence north 72° 21' 30" east a distance of 64 feet to the point of commencement. O. Reg. 469/86, s. 1.

L. J. FINCHAM
Director

*Plans Administration Branch
Central and Southwest
Ministry of Municipal Affairs*

Dated at Toronto, this 1st day of August, 1986.

PLANNING ACT, 1983

O. Reg. 470/86.

Restricted Areas—County of Simcoe,

Township of Vespra.

Made—August 1st, 1986.

Filed—August 8th, 1986.

**REGULATION TO AMEND
ONTARIO REGULATION 62/73
MADE UNDER THE
PLANNING ACT, 1983**

**1. Ontario Regulation 62/73 is amended
by adding thereto the following section:**

58.—(1) In this section,

"gross floor area" means the total area of all floors in a building, measured from the outside face of the exterior walls, but exclusive of any part of a building which is used for parking of motor vehicles, stairwells or for mechanical or electrical equipment providing services for the entire building;

"retail commercial mall" means a group of commercial or retail establishments located in one building or structure.

(2) Despite any other provision of this Order, buildings and structures may be erected and used on the lands described in subsection (4) for the purpose of a retail commercial mall provided the requirements set out in subsection (3) are met.

(3) The requirements for the uses permitted in subsection (2) are as follows:

Minimum lot area	450 square metres
Minimum lot frontage	15 metres
Minimum front yard	6 metres
Minimum side yards	3 metres
Minimum rear yard	7 metres
Maximum lot coverage	50 per cent
Maximum building height	7 metres
Minimum number of parking spaces	One space for each 30 square metres of gross floor area
Minimum number of loading spaces	1

(4) This section applies to that parcel of land in the City of Barrie, formerly in the Township of Vespra, in

the County of Simcoe, being that part of the west half of Lot 18 in Concession IV described as follows:

Commencing at the southwest angle of said Lot 18;

Thence northerly along the westerly limit of said lot 150 feet, more or less, to an iron bar;

Thence easterly and parallel to the southerly limit of said lot 580.8 feet;

Thence southerly and parallel to the westerly limit of said lot 150 feet, more or less, to the southerly limit;

Thence westerly along the southerly limit of said lot 580.8 feet to the place of beginning;

Except that part thereof expropriated for highway widening by the Department of Highways (Ontario) and being shown as Part 1 on Registered Instrument Number 228894. O. Reg. 470/86, s. 1.

L. J. FINCHAM
Director

*Plans Administration Branch
Central and Southwest
Ministry of Municipal Affairs*

Dated at Toronto, this 1st day of August, 1986.

(9211)

34

PLANNING ACT, 1983

O. Reg. 471/86.

Restricted Areas—County of Simcoe,
Township of Nottawasaga.

Made—August 1st, 1986.

Filed—August 8th, 1986.

REGULATION TO AMEND REGULATION 675 OF REVISED REGULATIONS OF ONTARIO, 1970 MADE UNDER THE PLANNING ACT, 1983

1. Regulation 675 of Revised Regulations of Ontario, 1970 is amended by adding thereto the following section:

237.—(1) Notwithstanding any other provision of this Order, a single-family dwelling and buildings and structures accessory thereto may be erected and used on the land described in subsection (2) if the following requirements are met:

Minimum front yard 7.6 metres

Minimum side yards 3 metres on one side and
1.2 metres on the other side

Maximum height of single-family dwelling 9.1 metres

Minimum ground floor area of single-family dwelling one storey—93 square metres
one and one-half storeys or more—69.8 square metres

(2) Subsection (1) applies to that parcel of land in the Township of Nottawasaga in the County of Simcoe, being that part of Lot 33 in Concession VII described as Part 1 on a Plan deposited in the Land Registry Office for the Registry Division of Simcoe (No. 51) as Number 51R-14644. O. Reg. 471/86, s. 1.

L. J. FINCHAM
Director

*Plans Administration Branch
Central and Southwest
Ministry of Municipal Affairs*

Dated at Toronto, this 1st day of August, 1986.

(9212)

34

MOTORIZED SNOW VEHICLES ACT

O. Reg. 472/86.

Designations.

Made—August 5th, 1986.

Filed—August 8th, 1986.

REGULATION TO AMEND REGULATION 668 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE MOTORIZED SNOW VEHICLES ACT

1. Paragraph 2 of section 4 of Regulation 668 of Revised Regulations of Ontario, 1980 is revoked.

EDWARD FULTON
*Minister of Transportation
and Communication*

Dated at Toronto, this 5th day of August, 1986.

(9213)

34

HIGHWAY TRAFFIC ACT

O. Reg. 473/86.

Parking.

Made—August 5th, 1986.

Filed—August 8th, 1986.

**REGULATION TO AMEND REGULATION 477 OF
REVISED REGULATIONS OF ONTARIO, 1980
MADE UNDER THE
HIGHWAY TRAFFIC ACT**

1. Schedule 14 of Appendix B to Regulation 477 of Revised Regulations of Ontario, 1980, as made by section 3 of Ontario Regulation 319/86, is revoked and the following substituted therefor:

Schedule 14

HIGHWAY No. 14

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4
Highway	Limits	Period	Maximum Period
Highway No. 14 in the Township of Rawdon in the County of Hastings	Between a point situate 700 metres measured northerly from its intersection with the centre line of the roadway known as Front Street in the Village of Stirling and a point situate 500 metres measured northerly from its intersection with the centre line of the road allowance between concessions 2 and 3	From September 16, 1986 to September 30, 1986 inclusive	No parking at any time

O. Reg. 473/86, s. 1.

EDWARD FULTON
*Minister of Transportation
and Communications*

Dated at Toronto, this 5th day of August, 1986.

(9214)

34

HIGHWAY TRAFFIC ACT

O. Reg. 474/86.

Parking.

Made—August 5th, 1986.

Filed—August 8th, 1986.

**REGULATION TO AMEND
REGULATION 477 OF
REVISED REGULATIONS OF
ONTARIO, 1980
MADE UNDER THE
HIGHWAY TRAFFIC ACT**

- 1.—(1) Schedule 2 of Appendix A to Regulation 477 of Revised Regulations of Ontario, 1980 is amended by adding thereto the following paragraph:

26. That part of the King's Highway known as No. 2 in the Town of Ancaster, in The Regional Municipality of Hamilton-Wentworth and in the Township of Brantford, in the County of Brant, beginning at a point situate 215 metres measured westerly from its intersection with the westerly limit of Sunnyside Road and extending westerly therealong for a distance of 215 metres.

- (2) Schedule 56 of Appendix A to the said Regulation, as amended by section 3 of

Ontario Regulation 39/86, is further amended by adding thereto the following paragraph:

Road and extending westerly therealong for a distance of 215 metres.

3. That part of the King's Highway known as No. 53 in the Town of Ancaster, in The Regional Municipality of Hamilton-Wentworth and in the Township of Brantford, in the County of Brant, beginning at a point situate 215 metres measured westerly from its intersection with the westerly limit of Sunnyridge

EDWARD FULTON
Minister of Transportation
and Communications

Dated at Toronto, this 5th day of August, 1986.

(9215) 34

CORRECTION

O. Reg. 446/86 made under the *Conservation Authorities Act*, published August 16th, 1986.

In Schedule 1, part of which appears on page 1967, Block A near the bottom of the page should have read as follows:

	A	
254		15
		75 — 80 both inclusive
		83 — 92 both inclusive
256		1
		56 — 61 both inclusive
265		2 — 6 both inclusive
(9257)		34

Publications Under The Regulations Act

August 30th, 1986

APPRENTICESHIP AND TRADESMEN'S QUALIFICATION ACT

O. Reg. 475/86.

Painter and Decorator.

Made—July 9th, 1986.

Filed—August 11th, 1986.

REGULATION TO AMEND REGULATION 50 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE APPRENTICESHIP AND TRADESMEN'S QUALIFICATION ACT

1. Subsection 5 (2) of Regulation 50 of Revised Regulations of Ontario, 1980, as remade by section 5 of Ontario Regulation 160/86, exclusive of the clauses, is revoked and the following substituted therefor:

(2) An apprentice training program shall consist of three periods of related training and work experience of 1,800 hours for each period for Branch 1 and Branch 2,

- 2.—(1) Section 8 of the said Regulation, as remade by section 7 of Ontario Regulation 160/86, is amended by adding "and" at the end of clause (b).

- (2) Clauses 8 (c) and (d) of the said Regulation, as remade by section 7 of Ontario Regulation 160/86, are revoked and the following substituted therefor:

(c) during the third period of related training and work experience, the wages referred to in clause (a) plus 60 per cent.

MINISTRY OF COLLEGES AND UNIVERSITIES ACT

O. Reg. 476/86.

Graduate Scholarships.

Made—July 7th, 1986.

Approved—July 9th, 1986.

Filed—August 11th, 1986.

REGULATION TO AMEND REGULATION 642 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE MINISTRY OF COLLEGES AND UNIVERSITIES ACT

1. Subsection 6 (1) of Regulation 642 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 441/85, is revoked and the following substituted therefor:

(1) The amount of an award under Part II or Part III shall not exceed \$2,920 per term. O. Reg. 476/86, s. 1.

GREGORY SORBARA
*Minister of Colleges
and Universities*

Dated at Toronto, this 7th day of July, 1986.

LOCAL ROADS BOARDS ACT

O. Reg. 477/86.

Establishment of Local Roads Areas—

Northern and Eastern Regions.

Made—August 5th, 1986.

Filed—August 12th, 1986.

**REGULATION TO AMEND
REGULATION 598 OF
REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
LOCAL ROADS BOARDS ACT**

- 1. Schedule 34 to Regulation 598 of Revised Regulations of Ontario, 1980 is revoked and the following substituted therefor:**

Schedule 34

CAMPBELL LOCAL ROADS AREA

All that portion of the Township of Campbell in the Territorial District of Manitoulin shown outlined on Ministry of Transportation Plan N-657-3 filed with the Administrative Services Office of the Ministry of Transportation and Communications at Toronto on the 19th day of June, 1986. O. Reg. 477/86, s. 1.

EDWARD FULTON
*Minister of Transportation
and Communications*

Dated at Toronto, this 5th day of August, 1986.

(9221)

35

PLANNING ACT, 1983

O. Reg. 478/86.

Restricted Areas—District of Algoma,
Sault Ste. Marie North Planning Area.
Made—August 7th, 1986.
Filed—August 12th, 1986.

**REGULATION TO AMEND
ONTARIO REGULATION 279/80
MADE UNDER THE
PLANNING ACT, 1983**

- 1. Ontario Regulation 279/80 is amended by adding thereto the following sections:**

90.—(1) Notwithstanding that the land described in subsection (2) is shown on a map referred to in clause 4 (b) as being in a Resort Commercial Zone, it shall be deemed to be in a Seasonal Residential Zone to which Part IV applies.

(2) Subsection (1) applies to that parcel of land in the geographic Township of Tilley in the District of Algoma described as lots 1, 2, 3, 4, 5, 6 and 7, Plan 1M-466 registered in the Land Registry Office for the Land Titles Division of Algoma (No. 1). O. Reg. 478/86, s. 1, *part*.

91.—(1) Notwithstanding that the land described in subsection (2) is shown on a map referred to in clause 4 (b) as being in the Resort Commercial Zone, it shall be deemed to be in an Open Space Zone to which Part X applies.

(2) Subsection (1) applies to that parcel of land in the geographic Township of Tilley in the District of Algoma described as Part 1, Plan 1R-6073 registered in the Land Registry Office for the Land Titles Division of Algoma (No. 1). O. Reg. 478/86, s. 1, *part*.

92.—(1) Notwithstanding that the land described in subsection (2) is shown on a map referred to in clause 4 (b) as being in a Rural Zone, it shall be deemed to be in an Open Space Zone to which Part X applies.

(2) Subsection (1) applies to that parcel of land in the geographic Township of Tilley in the District of Algoma described as Part 2, Plan 1R-6073 registered in the Land Registry Office for the Land Titles Division of Algoma (No. 1). O. Reg. 478/86, s. 1, *part*.

PAULINE MORRIS
*Director
Plans Administration Branch
North and East
Ministry of Municipal Affairs*

Dated at Toronto, this 7th day of August, 1986.

(9222)

35

INSURANCE ACT

O. Reg. 479/86.

Agents' Licences.
Made—August 13th, 1986.
Filed—August 14th, 1986.

**REGULATION TO AMEND
REGULATION 528 OF
REVISED REGULATIONS OF
ONTARIO, 1980
MADE UNDER THE
INSURANCE ACT**

- 1. Section 1 of Regulation 528 of Revised Regulations of Ontario, 1980 is revoked and the following substituted therefor:**

1. This Regulation applies to all classes of licences that authorize the carrying on of business as an insurance agent. O. Reg. 479/86, s. 1.

- 2. Section 5 of the said Regulation is revoked and the following substituted therefor:**

5.—(1) A licence or renewal of a licence shall not be granted unless,

- (a) the applicant is working or intends to work full time as an insurance agent; and
- (b) the sole business, occupation or employment of the applicant is that of an insurance agent.

(2) In this section, "full time" means thirty hours or more per week as averaged over the most recent three-month period.

(3) Subsection (1) does not apply to an applicant who,

- (a) carries on the main portion of his or her business as an insurance agent in a township having a population of less than 10,000 or in any other municipality having a population of less than 5,000; or
- (b) carries on business as,
 - (i) a transportation company or ticket agency for the business of travel, accident and baggage insurance, or
 - (ii) a real estate broker or real estate salesman.

(4) The Superintendent may require an applicant for a licence or renewal of a licence to verify by statutory declaration that the applicant complies with clauses (1) (a) and (b). O. Reg. 479/86, s. 2.

3. The said Regulation is amended by adding thereto the following sections:

14. The Superintendent may suspend, revoke or refuse to renew the licence of any person who has,

- (a) carried on any business or occupation during the term of such licence other than as permitted by subsection 5 (3); or
- (b) carried on the business of an insurance agent during the term of such licence other than on a full time basis. O. Reg. 479/86, s. 3, *part.*

15. Clauses 5 (1) (a) and 14 (b) do not apply to an applicant who was licensed as an insurance agent on the 15th day of August, 1986. O. Reg. 479/86, s. 3, *part.*

16. Any insurer that appoints an agent who was not licensed on the 15th day of August, 1986, either by written contract or otherwise, shall maintain records of the time worked by such agent and provide such records to the Superintendent if requested. O. Reg. 479/86, s. 3, *part.*

MUNICIPAL BOUNDARY NEGOTIATIONS ACT, 1981

O. Reg. 480/86.

Town of Harriston—Township of Minto Boundary.

Made—August 8th, 1986.

Filed—August 14th, 1986.

ORDER IN COUNCIL

R.O.C. 297/86

WHEREAS The Corporation of the Town of Harriston and The Corporation of the Township of Minto have entered into agreement dated the 5th day of May, 1986 for the resolution of certain boundary issues;

AND WHEREAS public notice was given by the Clerk of the Executive Council under subsection 17 (1) of the *Municipal Boundary Negotiations Act, 1981* of the intention to make an order implementing the intermunicipal agreement;

AND WHEREAS no objections to the proposed issuance of the Order were filed with the Clerk of the Executive Council within the filing period;

NOW THEREFORE on the recommendation of the undersigned, the Lieutenant Governor, by and with the advice and concurrence of the Executive Council, orders under section 14 of the *Municipal Boundary Negotiations Act, 1981* that,

1. On the 1st day of September, 1986 the portion of the Township of Minto described in the Schedule, hereinafter referred to as the "annexed area", is annexed to the Town of Harriston.

2. All real property of The Corporation of the Township of Minto situate in the annexed area vests in The Corporation of the Town of Harriston on the 1st day of September, 1986.

3. On the 1st day of September, 1986 the by-laws of The Corporation of the Town of Harriston extend to the annexed area and the by-laws of The Corporation of the Township of Minto cease to apply to such area, except,

(a) by-laws that were passed,

(i) by the council of The Corporation of the Township of Minto under section 34 or 41 of the *Planning Act, 1983* or a predecessor of those sections, or

(ii) by the council of The Corporation of the Township of Minto that are kept in force by subsection 13 (3) of *The Municipal Amendment Act, 1941*,

which shall remain in force in the annexed area until repealed by the council of The Corporation of the Town of Harriston; and

- (b) by-laws conferring rights, privileges, franchises, immunities or exemptions that could not have been lawfully repealed by the council of The Corporation of the Township of Minto.

4. The clerk of The Corporation of the Township of Minto shall forthwith prepare and furnish to the clerk of The Corporation of the Town of Harriston a special collector's roll showing all arrears of taxes or special rates assessed against the lands in the annexed area up to the 31st day of August, 1986 and the persons assessed therefor.

5.—(1) All real property taxes levied under any general or special Act and uncollected in the annexed area which are due and unpaid on the 1st day of September, 1986 shall be deemed on that date to be taxes due and payable to The Corporation of the Town of Harriston and may be collected by The Corporation of the Town of Harriston.

(2) On or before the 31st day of October, 1986, The Corporation of the Town of Harriston shall pay to The Corporation of the Township of Minto an amount equal to the amount of all real property taxes that The Corporation of the Town of Harriston is entitled to collect in the annexed area under subsection (1) which were due but unpaid on the 1st day of September, 1986.

6. All business taxes levied and uncollected in the annexed area which are due and unpaid on the 31st day of August, 1986 shall continue after that date to be taxes due and payable to The Corporation of the Township of Minto and may be collected by The Corporation of the Township of Minto.

7.—(1) The assessment of land in the annexed area upon which the taxes after the 31st day of August, 1986 shall be levied shall be determined by the Assessment Commissioner in accordance with the classes of real property and the factors prescribed for The Corporation of the Town of Harriston by regulations made under the *Assessment Act*.

(2) Where the Assessment Commissioner makes an assessment in accordance with subsection (1), section 34 of the *Assessment Act* applies to the assessment.

8. The Corporation of the Town of Harriston shall pay to The Corporation of the Township of Minto, as total compensation for any loss of assessment arising as a result of the annexation, the sum of \$750 on or before the 1st day of October in each of the years 1986 to 1995, inclusive.

9. The agreement between The Corporation of the Town of Harriston and The Corporation of the

Township of Minto entered into on the 5th day of May, 1986 is hereby given effect. O. Reg. 480/86.

Recommended

ALVIN CURLING
*for Minister of Municipal
Affairs*

Concurred

MURRAY ELSTON
Chairman

Approved and Ordered, August 8th, 1986.

LINCOLN M. ALEXANDER
Lieutenant Governor

Schedule A

AREAS TO BE ANNEXED TO THE TOWN OF HARRISTON

Those portions of the Township of Minto described as follows:

1. Beginning at the intersection of the north-westerly boundary of the Town of Harriston and the centre line of the King's Highway Number 9;

Thence northwesterly along the centre line of the said King's Highway to intersect the northeasterly prolongation of the northwesterly limit of Lot 83 in Concession D of the Township of Minto;

Thence southwesterly to and along the said northwesterly limit to the northeasterly limit of the right of way of the Canadian National Railways;

Thence northwesterly along the northeasterly limit of the said right of way to the northwesterly limit of Lot 82 in the said Concession;

Thence southwesterly along the said northwesterly limit to the westerly angle of the said Lot;

Thence southeasterly along the southwesterly limit of lots 82, 83 and 84 in the said Concession D to an angle in the Town of Harriston;

Thence northeasterly following the northwesterly boundaries of the said Town to the place of beginning.

2. Beginning at the southwesterly angle of the northerly half of Lot 88 in Concession C of the Township of Minto;

Thence northeasterly along the northwesterly limit of the said Lot to the northeasterly limit of the said Lot;

HARRY PARKER
Secretary

Thence southeasterly along the said north-easterly limit to the southeasterly limit of the said Lot;

Thence southwesterly along the southeasterly limit of the said Lot 88 to the southerly angle of the northerly half of the said Lot;

Thence northwesterly along the southerly limit of the said northerly half to the place of beginning. O. Reg. 480/86, Sched. A.

(9242)

35

MILK ACT

O. Reg. 481/86.

Industrial Milk—Marketing.

Made—August 13th, 1986.

Filed—August 14th, 1986.

REGULATION TO AMEND REGULATION 623 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE MILK ACT

1.—(1) Subsection 13 (3) of Regulation 623 of Revised Regulations of Ontario, 1980, as remade by subsection 1 (3) of Ontario Regulation 453/86, is revoked and the following substituted therefor:

(3) All Class 4a milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$42.23 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 481/86, s. 1 (1).

(2) Subsection 13 (4) of the said Regulation, as remade by subsection 1 (4) of Ontario Regulation 453/86, is revoked and the following substituted therefor:

(4) All Class 4b milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$42.23 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 481/86, s. 1 (2).

2. This Regulation comes into force on the 15th day of August, 1986.

THE ONTARIO MILK MARKETING BOARD:

GRANT SMITH
Chairman

Dated at Mississauga, this 13th day of August, 1986.

(9243)

35

MILK ACT

O. Reg. 482/86.

Marketing of Milk to Fluid Milk Processors.

Made—August 13th, 1986.

Filed—August 14th, 1986.

REGULATION TO AMEND ONTARIO REGULATION 541/81 MADE UNDER THE MILK ACT

1.—(1) Subsection 15 (6) of Ontario Regulation 541/81, as remade by subsection 1 (3) of Ontario Regulation 452/86, is revoked and the following substituted therefor:

(6) All Class 4a milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$42.23 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 482/86, s. 1 (1).

(2) Subsection 15 (7) of the said Regulation, as remade by subsection 1 (4) of Ontario Regulation 452/86, is revoked and the following substituted therefor:

(7) All Class 4b milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$42.23 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 482/86, s. 1 (2).

2. This Regulation comes into force on the 15th day of August, 1986.

THE ONTARIO MILK MARKETING BOARD:

GRANT SMITH
Chairman

HARRY PARKER
Secretary

Dated at Mississauga, this 13th day of August, 1986.

(9244)

35

LIQUOR LICENCE ACT

O. Reg. 483/86.

General.

Made—August 13th, 1986.

Filed—August 14th, 1986.

**REGULATION TO AMEND
REGULATION 581 OF
REVISED REGULATIONS OF
ONTARIO, 1980
MADE UNDER THE
LIQUOR LICENCE ACT**

1. Section 55c of Regulation 581 of Revised Regulations of Ontario, 1980, as made by section 2 of Ontario Regulation 560/81, is revoked and the following substituted therefor:

55c. Notwithstanding subsections 9 (1) and (2), liquor may be sold and served on the 31st day of August, 1986 at the Cleary Auditorium and Convention Centre, Windsor, Ontario in licensed premises between the hours of 12 noon of that day and 1 a.m. on the following day. O. Reg. 483/86, s. 1.

(9245)

35

COURTS OF JUSTICE ACT, 1984

O. Reg. 484/86.

Rules of Civil Procedure.

Made—June 24th, 1986.

Approved—August 13th, 1986.

Filed—August 14th, 1986.

**REGULATION TO AMEND
ONTARIO REGULATION 560/84
MADE UNDER THE
COURTS OF JUSTICE ACT, 1984**

1. The Rules of Civil Procedure set out in the Schedule to Ontario Regulation 560/84, as amended by section 1 of Ontario Regulation 786/84, section 1 of Ontario Regulation 478/85, section 1 of Ontario Regulation 221/86 and section 1 of Ontario Regulation 323/86, are further amended as follows:

1. Subrule 25.03 (1) is revoked and the following substituted therefor:

Who is to be served

- (1) Every pleading shall be served,

- (a) initially on every opposite party and on every other party who has delivered a pleading or a notice of intention to defend in the main action or in a counterclaim, crossclaim or third or subsequent party claim in the main action; and
- (b) subsequently on every other party forthwith after he or she delivers a pleading or a notice of intention to defend in the main action or in a counterclaim, crossclaim or third or subsequent party claim in the main action.

2. Rule 28.05 is revoked and the following substituted therefor:

**TIME FOR DELIVERY OF DEFENCE TO
CROSSCLAIM**

Defence to Crossclaim

28.05 (1) Subject to subrule (2), a defence to crossclaim (Form 28B) shall be delivered within twenty days after service of the statement of defence and crossclaim.

Where Defence to Crossclaim not Required

- (2) Where,
- (a) a crossclaim contains no claim other than a claim for contribution or indemnity under the *Negligence Act*;
- (b) the defendant to the crossclaim has delivered a statement of defence in the main action; and
- (c) the defendant to the crossclaim in response to the crossclaim relies on the facts pleaded in his or her statement of defence in the main action and not on a different version of the facts or on any matter that might, if not specifically pleaded, take the crossclaiming defendant by surprise,

the defendant to the crossclaim need not deliver a defence to the crossclaim and shall be deemed to deny the allegations of fact made in the crossclaim and to rely on the facts pleaded in his or her statement of defence in the main action.

3. Subrule 60.08 (3) is revoked and the following substituted therefor:

(3) The affidavit required by subrule (2) may contain statements of the deponent's information and belief, if the source of the information and the fact of the belief are specified in the affidavit.

(3a) On the filing of the requisition and affidavit required by subrule (2), the registrar shall issue notices of garnishment (Form 60G) naming as garnishees the persons named in the affidavit and shall send a copy of

each notice of garnishment to the sheriff of the county in which the debtor resides or, if the debtor resides outside Ontario, to the sheriff of the county in which the proceeding was commenced.

advised within ten days that the motion is ready to proceed.

(7) Where the moving party does not advise the Registrar that the motion is ready to proceed within ten days after service of the notice or within such longer period as a judge of the appellate court allows, the Registrar shall make an order in Form 61IA dismissing the motion for delay, with costs.

4. Rule 61.12 is amended by adding thereto the following subrules:

Motions for Leave

(6) On a motion for leave to appeal where the moving party has not advised the Registrar that the motion is ready for a date to be set for a hearing within six months after filing the notice of motion, the Registrar may serve notice on the moving party that the motion will be dismissed for delay unless the Registrar is

5. Rule 71.06 is amended by striking out "Rule 70.22" in the first line and inserting in lieu thereof "Rule 70.21".

6. Rule 71.07 is amended by striking out "Rule 70.27" in the first line and inserting in lieu thereof "Rule 70.15".

7. The following Form is added:

Form 61IA

ORDER DISMISSING MOTION FOR LEAVE TO APPEAL FOR DELAY

(General Heading)

ORDER DISMISSING MOTION FOR LEAVE

The moving party on this motion for leave to appeal from the order (or as may be) of (name of court or tribunal) dated (date) has not advised the Registrar that the motion is ready to proceed, although given notice under subrule 61.12 (6) to do so.

IT IS ORDERED that this motion be dismissed for delay, with costs.

Date Signed by Registrar of the Court of Appeal (or Divisional Court)

O. Reg. 484/86, s. 1, par. 7.

8. Page 1 of Form 70B is revoked and the following substituted therefor:

Form 70B

JOINT PETITION FOR DIVORCE

(Court file No.)

(Court)

(Name)

Husband

and

(Name)

Wife

(Court seal)

JOINT PETITION FOR DIVORCE

Date Issued by Local registrar

Address of
court office

1. The husband and wife jointly seek:

(State precisely everything you want the court to include in the judgment. Everything you want to include must have been agreed to by both spouses. If you want to include provisions of a separation agreement in the judgment, refer to the specific provisions to be included.)

- (a) a divorce;
- (b) under the *Divorce Act* ,
 - (i)
 - (ii)
 - (iii)
- (c) under the *Family Law Act* , 1986,
 - (i)
 - (ii)
 - (iii)

GROUND(S) FOR DIVORCE — SEPARATION

2. The spouses have lived separate and apart since
(date)

The spouses have resumed cohabitation during the following periods in an unsuccessful attempt at reconciliation:

Date(s) of cohabitation

(If none,
state
"None.")

9. Clause 9 (a) of Form 70T is amended by striking out "70R" in the second line and inserting in lieu thereof "70S".

10. Item 1 of Tariff A is revoked and the following substituted therefor:

1. Pleadings, up to\$100

This item includes all services, except motions, up to and including delivery of pleadings.

An increased fee may be allowed in the discretion of the assessment officer.

11. Item 9 of Tariff A is revoked and the following substituted therefor:

9. Examination, up to\$100

This item applies to each oral or written examination out of court, including preliminary steps, preparation and counsel fee, except an examination in aid of execution (item 18).

An increased fee may be allowed in the discretion of the assessment officer.

12. Tariff A is amended by adding the following item:

12a. Assignment court, up to\$50

This item applies to each attendance at a sitting of the court convened for the purpose of managing the list of cases to be tried.

13. Clause (b) of item 15 of Tariff A is revoked and the following substituted therefor:

(b) Appeal to a judge of the High Court or District Court\$75

This item includes all preliminary steps, notices, appeal record, factum, preparation, counsel fee and attendance to hear judgment.

An increased fee may be allowed in the discretion of the assessment officer.

14. Item 18 of Tariff A is revoked and the following substituted therefor:

18. Examination in aid of execution\$50

An increased fee may be allowed in the discretion of the assessment officer.

2. This Regulation comes into force on the 2nd day of September, 1986.

**RÈGLEMENT PORTANT
MODIFICATION DU RÈGLEMENT
DE L'ONTARIO 560/84 PRIS EN
APPLICATION DE LA LOI DE 1984
SUR LES TRIBUNAUX
JUDICIAIRES**

1 Les Règles de procédure civile, qui figurent à l'Annexe au Règlement de l'Ontario 560/84, telles qu'elles sont modifiées par l'article 1 du Règlement de l'Ontario 786/84, par l'article 1 du Règlement de l'Ontario 478/85, par l'article 1 du Règlement de l'Ontario 221/86 et par l'article 1 du Règlement de l'Ontario 323/86, sont modifiées de nouveau de la façon suivante :

1 Le paragraphe 25.03 (1) est abrogé et remplacé par ce qui suit :

Destinataire

(1) L'acte de procédure est signifié :

- a) d'abord à chaque partie adverse et à chaque autre partie qui a remis un acte de procédure ou un avis d'intention de présenter une défense dans l'action principale ou dans la demande reconventionnelle, la demande entre défendeurs ou la mise en cause dans l'action principale;
- b) ensuite à chaque autre partie immédiatement après qu'elle a remis un acte de procédure ou un avis d'intention de présenter une défense dans l'action principale ou dans la demande reconventionnelle, la demande entre défendeurs ou la mise en cause dans l'action principale.

2 La règle 28.05 est abrogée et remplacée par ce qui suit :

**DÉLAI POUR LA REMISE DE LA
DÉFENSE À LA DEMANDE ENTRE
DÉFENDEURS**

Défense à la demande entre défendeurs

28.05 (1) Sous réserve du paragraphe (2), la défense à la demande entre défendeurs (formule 28B) est remise dans les vingt jours suivant la signification de la défense et demande entre défendeurs.

Défense à la demande entre défendeurs non requise

(2) Le défendeur n'est pas obligé de remettre la défense à la demande entre défendeurs si les conditions suivantes sont réunies :

- a) la seule demande dans la demande entre défendeurs concerne la part de la faute ou l'indemnité prévue par la *Loi sur le partage de la responsabilité*;
- b) le défendeur à la demande entre défendeurs a remis une défense dans l'action principale;
- c) le défendeur à la demande entre défendeurs, en réponse à celle-ci, fonde sa défense sur les faits soulevés dans sa défense dans l'action principale et non pas sur une version des faits différente ni sur un point qui risquerait de prendre par surprise le défendeur qui s'est porté demandeur entre défendeurs si le point n'avait pas été spécifiquement soulevé.

Le défendeur à la demande entre défendeurs est réputé nier les allégations de fait dans la demande entre défendeurs et est réputé se fonder sur les faits précisés dans sa défense dans l'action principale.

3 Le paragraphe 60.08 (3) est abrogé et remplacé par ce qui suit :

(3) L'affidavit visé au paragraphe (2) peut faire état des éléments que le déposant tient pour véridiques sur

la foi de renseignements, pourvu que la source de ces renseignements et le fait qu'ils sont tenus pour véridiques soient indiqués.

(3a) Après le dépôt de la réquisition et de l'affidavit visés au paragraphe (2), le greffier délivre des avis de saisie-arrêt (formule 60G) qui désignent à titre de tiers saisis les tiers dont les noms figurent à l'affidavit. Il envoie une copie de chaque avis au shérif du comté où réside le débiteur ou, si le débiteur réside à l'extérieur de l'Ontario, au shérif du comté où l'instance a été introduite.

4 La règle 61.12 est modifiée par adjonction des paragraphes suivants :

Motion en autorisation

(6) Dans la motion en autorisation d'interjeter appel, si l'auteur de la motion n'a pas avisé le greffier que la motion est prête pour que la date de l'audience

soit fixée dans les six mois suivant le dépôt de l'avis de motion, le greffier peut signifier un avis à l'auteur de la motion portant que la motion sera rejetée pour cause de retard à moins que le greffier ne soit avisé dans un délai de dix jours que la motion est en état.

(7) Si l'auteur de la motion n'avise pas le greffier que la motion est en état dans les dix jours suivant la signification de l'avis, ou dans le délai plus long accordé par un juge du tribunal d'appel, le greffier rend une ordonnance rédigée selon la formule 61IA et rejetant la motion pour cause de retard, avec dépens.

5 La règle 71.06 est modifiée par substitution, à "La règle 70.22" à la première ligne, de "La règle 70.21".

6 La règle 71.07 est modifiée par substitution, à "La règle 70.27" à la première ligne, de "La règle 70.15".

7 La formule suivante est ajoutée :

Formule 61IA

ORDONNANCE REJETANT LA MOTION EN
AUTORISATION D'INTERJETER APPEL POUR CAUSE DE RETARD

(titre)

ORDONNANCE REJETANT LA MOTION EN AUTORISATION

L'auteur de la motion en autorisation d'interjeter appel de l'ordonnance (*ou la mention appropriée*) de (*nom du tribunal ou de la cour*) du (*date*) n'a pas avisé le greffier que la motion est en état, malgré l'avis à cet effet donné en vertu du paragraphe 61.12 (6).

IL EST ORDONNÉ que la présente motion soit rejetée pour cause de retard, avec dépens.

date signature
greffier de la Cour d'appel
(ou de la Cour divisionnaire)

Règl. de l'Ont. 484/86, art. 1, disp. 7.

8 La première page de la formule 70B est abrogée et remplacée par ce qui suit :

Formule 70B

REQUÊTE CONJOINTE EN DIVORCE

(Tribunal)

(N° du dossier
du tribunal)

(Nom)

Époux

et

(Nom)

Épouse

(Sceau du
tribunal)

REQUÊTE CONJOINTE EN DIVORCE

date

délivrée par
greffier local
adresse
du greffe

1. L'époux et l'épouse demandent conjointement :

(Indiquer avec précision tout ce que vous voulez faire inclure dans le jugement du tribunal. Tout ce que vous voulez faire inclure doit faire l'objet d'un accord entre les conjoints. Si vous voulez faire inclure dans le jugement des clauses d'un accord de séparation, faites référence aux clauses précises.)

- a) un divorce;
- b) en vertu de la *Loi sur le divorce* :

(i)
(ii)
(iii)
- c) en vertu de la *Loi de 1986 sur le droit de la famille* :

(i)
(ii)
(iii)

Formule 70B, page 1A

CAUSE DE DIVORCE—SÉPARATION

2. Les conjoints vivent séparément depuis le
(date)

Une tentative infructueuse de réconciliation les a fait reprendre la cohabitation pendant les périodes suivantes :

Date(s) de la cohabitation

(Écrire "aucune reprise", si c'est le cas)

9 L'alinéa 9 a) de la formule 70T est modifié par substitution, à "70R" à la deuxième ligne, de "70S".

10 Le poste 1 du tarif A est abrogé et remplacé par ce qui suit :

1. Actes de procédure écrite, jusqu'à concurrence de100 \$
- Ce poste comprend tous les services, à l'exclusion des motions, jusqu'à la remise des actes de procédure et comprenant celle-ci.
- Le liquidateur des dépens peut majorer les honoraires.

11 Le poste 9 du tarif A est abrogé et remplacé par ce qui suit :

9. Interrogatoire, jusqu'à concurrence de100 \$

Ce poste s'applique à chaque interrogatoire oral ou écrit hors la présence du tribunal, y compris les mesures préliminaires, la préparation et les honoraires d'avocat, à l'exception d'un interrogatoire à l'appui d'une exécution (poste 18).

Le liquidateur des dépens peut majorer les honoraires.

12 Le tarif A est modifié par adjonction du poste suivant :

12a. Inscription pour l'audience, jusqu'à concurrence de50 \$

Ce poste s'applique à la présence à chaque session du tribunal convoquée pour régler le rôle des causes à entendre.

13 L'alinéa b) du poste 15 du tarif A est abrogé et remplacé par ce qui suit :

b) appel interjeté devant un juge de la Haute Cour ou de la Cour de district75 \$

Ce poste comprend toutes les mesures préliminaires, les avis, le dossier d'appel, le mémoire, la préparation, les honoraires d'avocat et la présence au prononcé du jugement.

Le liquidateur des dépens peut majorer les honoraires.

14 Le poste 18 du tarif A est abrogé et remplacé par ce qui suit :

18. Interrogatoire à l'appui d'une exécution forcée50 \$

Le liquidateur des dépens peut majorer les honoraires.

2 Le présent règlement entre en vigueur le 2 septembre 1986.

(9246)

35

PETROLEUM RESOURCES ACT

O. Reg. 485/86.
Spacing Units—Enniskillen 6-15-II.
Made—August 13th, 1986.
Filed—August 14th, 1986.

REGULATION MADE UNDER THE
PETROLEUM RESOURCES ACT

SPACING UNITS—ENNISKILLEN 6-15-II

1. This Regulation applies to the area comprising,
- (a) the south half of the northwest quarter of Lot 15 in Concession II;
 - (b) the south half of the northeast quarter of Lot 14 in Concession II;
 - (c) the north half of the southeast quarter of Lot 14 in Concession II; and
 - (d) the north half of the southwest quarter of Lot 15 in Concession II,

in the Township of Enniskillen, in the County of Lambton, as shown outlined in a plan filed in the Regional Office of the Ministry of Natural Resources at London as Plan No. SWR-86-3, dated July 8, 1986. O. Reg. 485/86, s. 1.

2. This Regulation applies only to wells drilled to formations of Silurian age. O. Reg. 485/86, s. 2.

3. For the purpose of this Regulation, the area described in section 1 constitutes a single spacing unit of approximately eighty acres. O. Reg. 485/86, s. 3.

4. No person shall bore or drill a well on the spacing unit or produce from a well on the spacing unit unless all the interests in the gas and oil in the spacing unit have been joined for the purpose of drilling or operating the well. O. Reg. 485/86, s. 4.

(9247)

35

GAME AND FISH ACT

O. Reg. 486/86.
Open Seasons—Moose and Deer.
Made—August 13th, 1986.
Filed—August 14th, 1986.

REGULATION TO AMEND
REGULATION 428 OF
REVISED REGULATIONS OF
ONTARIO, 1980
MADE UNDER THE
GAME AND FISH ACT

1. Section 5 of Regulation 428 of Revised Regulations of Ontario, 1980, as remade by section 3 of Ontario Regulation 137/83, is revoked.

(9248)

35

GAME AND FISH ACT

O. Reg. 487/86.

Nashville Tract Hunting Area.

Made—August 13th, 1986.

Filed—August 14th, 1986.

REGULATION MADE UNDER THE GAME AND FISH ACT

NASHVILLE TRACT HUNTING AREA

1. The lands in respect of which an agreement has been entered into under section 6 of the Act, described in the Schedule, are designated in accordance with paragraph 33 of section 92 of the Act. O. Reg. 487/86, s. 1.

2. Regulations 420 and 428 of Revised Regulations of Ontario, 1980 apply to the hunting of deer in the area described in the Schedule except in so far as such Regulations are modified by this Regulation. O. Reg. 487/86, s. 2.

3. Except as provided in this Regulation, no person shall hunt any animal or bird in the area described in the Schedule. O. Reg. 487/86, s. 3.

4.—(1) The holder of a licence in Form 1 or 2 of Regulation 420 of Revised Regulations of Ontario, 1980 may hunt deer of either sex from the first Monday in November to the Thursday next following, both inclusive, and from the second Monday in November to the Thursday next following, both inclusive, in any year in the area described in the Schedule if,

- (a) the holder's name is drawn by lot in a draw administered by the Ministry;
- (b) the holder affixes to the licence a tag in Form 25 of Regulation 420 of Revised Regulations of Ontario, 1980 issued to the holder;
- (c) the holder hunts only on a date set out in the tag; and
- (d) the holder returns to the Cold Creek Conservation Authority Area station at or before 7.30 o'clock in the afternoon on every day the holder has hunted and reports the day's success and, where successful, produces the deer to the officer for inspection.

(2) No person shall use or be accompanied by a dog while hunting deer in the area described in the Schedule.

(3) Only shotguns may be used while hunting deer in the area described in the Schedule.

(4) The holder of a licence in Form 1 or 2 of Regulation 420 of Revised Regulations of Ontario, 1980 that is valid for hunting deer in the area described in the Schedule shall complete the questionnaire provided with the tag in Form 25 of Regulation 420 of Revised Regulations of Ontario, 1980 by the Ministry and return the questionnaire to the office of the Ministry specified thereon on or before the fourteenth day next following the expiry of the tag.

(5) Any person who refuses or neglects to return the completed questionnaire to the Ministry as required by subsection (4) is ineligible to receive a tag in Form 25 of Regulation 420 of Revised Regulations of Ontario, 1980 in the year next following. O. Reg. 487/86, s. 4.

Schedule

All those lands in the Town of Vaughan and in the Township of King, in The Regional Municipality of York described as follows:

FIRSTLY:

All that parcel or tract of land in the Town of Vaughan, in The Regional Municipality of York and in the Province of Ontario, being composed of that Part of Lots 30 and 31, Concession 9, designated as Parts 1 and 2 on a plan of survey deposited in the Land Registry Office for the Registry Division of Toronto Boroughs and York South (No. 64) as Plan 64R-7535.

SECONDLY:

All that parcel or tract of land in the Town of Vaughan, in The Regional Municipality of York and in the Province of Ontario, being composed of that Part of Lots 31 and 32, Concession 9, West of Yonge Street, the limits of the said parcel of land may be more particularly described as follows:

Premising that the bearings are astronomic, derived from observations on the sun at the northwest angle of Lot 35, Concession 10, Town of Vaughan and are referred to the Meridian at Longitude 79° 26' 00" W and Latitude 42° 36' 00" N.

Commencing at the northwesterly angle of said Lot 32;

Thence S 09° 21' 50" E along the road between Concessions 9 and 10, a distance of 322.50';

Thence S 30° 43' 50" E a distance of 269.00';

Thence S 13° 34' 10" W a distance of 216.75';

Thence S 02° 47' 30" W a distance of 64.38" to a point on the east limit of the Road Allowance between Concessions 9 and 10;

Thence S 09° 21' 50" E along the east limit of the said Road Allowance a distance of 1407.32';

Thence N 73° 37' 10" E a distance of 306.58';

Thence S 71° 25' 50" E a distance of 715.51' to a point on the north limit Road Allowance between Lots 30 and 31, Concession 9;

Thence N 73° 16' 00" E along the north limit of said Road Allowance a distance of 608.95';

Thence N 50° 06' 20" E a distance of 101.83';

Thence N 40° 09' 50" E a distance of 629.62';

Thence N 30° 16' 00" E a distance of 82.44';

Thence N 63° 36' 00" E a distance of 252.24';

Thence N 28° 15' 10" E a distance of 72.43';

Thence N 89° 42' 20" E a distance of 212.08';

Thence S 62° 48' 50" E a distance of 429.17';

Thence S 44° 04' 00" E a distance of 198.16' to point on the north limit of Road Allowance between Lots 30 and 31, Concession 9;

Thence N 73° 16' 00" E along the north limit of said Road Allowance a distance of 451.73';

Thence N 09° 20' 15" E a distance of 2677.03' to a point on the line between Lots 32 and 33;

Thence S 73° 19' 10" W along the said line, a distance of 278.30';

Thence S 73° 09' 50" W along the said line, a distance of 1320.62';

Thence S 73° 52' 50" W along the said line, a distance of 179.83';

Thence S 72° 39' 20" W along the said line, a distance of 218.22';

Thence S 71° 46' 40" W along the said line, a distance of 131.29';

Thence S 70° 29' 10" W along the said line, a distance of 134.39';

Thence S 41° 08' 20" W a distance of 88.74';

Thence N 88° 11' 20" W a distance of 68.54';

Thence S 59° 38' 40" W a distance of 119.22';

Thence S 54° 36' 30" W a distance of 153.84';

Thence N 73° 20' 10" W a distance of 107.90';

Thence N 67° 12' 20" W a distance of 64.21' to a point on the line between Lots 32 and 33, Concession 9;

Thence S 73° 16' 50" W along the said line a distance of 789.11' to the point of commencement.

THIRDLY:

All that parcel or tract of land in the Town of Vaughan, in The Regional Municipality of York and in the Province of Ontario, being composed of that Part of Lot 31, Concession 10, West of Yonge Street, the limits of said parcel of land may be more particularly described as follows:

Premising that the bearings are astronomic, derived from observations on the sun at the northwest angle of Lot 35, Concession 10, Town of Vaughan, and are referred to the Meridian at Longitude 79° 26' 00" W and Latitude 42° 36' 00" N.

Commencing at a point on the west limit of Road Allowance, between Concessions 9 and 10, a distance of 40.31' measured S 09° 21' 50" E, from the northeasterly angle of said Lot 31;

Thence S 09° 21' 50" E along the said Road Allowance, a distance of 183.67';

Thence N 56° 53' 10" W a distance of 132.54';

Thence N 36° 42' 30" E a distance of 135.73' to the point of commencement.

FOURTHLY:

All that parcel or tract of land in the Town of Vaughan, in The Regional Municipality of York and in the Province of Ontario, being composed of that Part of Lots 31, 32, 33, 34 and 35, Concession 10, West of Yonge Street, the limits of the said parcel of land may be more particularly described as follows:

Premising that the bearings are astronomic, derived from observations on the sun at the northwest angle of Lot 35, Concession 10, Town of Vaughan and are referred to the Meridian at Longitude 79° 26' 00" W and Latitude 42° 36' 00" N.

Commencing at the southeasterly angle of the said Lot 31;

Thence N 09° 21' 50" W along the west limit of Road Allowance between Concessions 9 and 10, a distance of 1017.10';

Thence N 56° 53' 10" W a distance of 263.24';

Thence N 36° 42' 30" E a distance of 269.58';

Thence N 09° 21' 50" W along the west limit of said Road Allowance, a distance of 1297.65' to the northeasterly angle of the said Lot 32;

Thence N 09° 41' 10" W along the west limit of said Road Allowance a distance of 1348.98' to the north-easterly angle of the said Lot 35;

Thence N 09° 30' 10" W along the west limit of said Road Allowance, a distance of 2682.13' to the north-easterly angle of the said Lot 35;

Thence S 73° 52' 20" W along the south limit of Road Allowance between original Townships of King and Vaughan, a distance of 2987.63';

Thence S 06° 31' 10" E a distance of 844.73';

Thence S 06° 06' 40" E a distance of 494.66';

Thence N 73° 51' 20" E a distance of 25.93';

Thence S 10° 02' 30" E a distance of 330.00';

Thence S 73° 51' 20" W a distance of 48.85';

Thence S 06° 07' 10" E a distance of 1034.58';

Thence S 73° 45' 15" W a distance of 143.99';

Thence N 10° 02' 30" W a distance of 1354.82';

Thence N 08° 25' 50" W a distance of 1331.87' to the south limit of the Road Allowance between original Townships of King and Vaughan;

Thence S 73° 52' 20" W along the south limit of said Road Allowance, a distance of 3313.67' to the north-westerly angle of said Lot 35;

Thence S 09° 22' 10" E along the west limit of said Lots 34 and 35, a distance of 2689.21' to the south-westerly angle of said Lot 34;

Thence N 73° 51' 30" E along the south limit of said Lot 34, a distance of 441.11';

Thence N 73° 47' 10" E along the south limit of said Lot 34, a distance of 2155.58';

Thence S 59° 41' 40" E a distance of 920.16';

Thence S 09° 37' 00" E a distance of 671.98' to the line between Lots 32 and 33, Concession 10;

Thence S 73° 40' 20" W along the line between Lots 32 and 33, a distance of 640.78';

Thence S 01° 44' 30" W a distance of 1405.41' to the line between Lots 31 and 32, Concession 10;

Thence N 73° 38' 10" E along the said line a distance of 912.80';

Thence S 09° 50' 00" E a distance of 675.06';

Thence S 09° 15' 50" E a distance of 544.69';

Thence N 73° 55' 30" E a distance of 411.93';

Thence S 03° 07' 50" E a distance of 130.72' to the north limit of Road Allowance between Lots 30 and 31, Concession 10;

Thence N 73° 40' 30" E along the north limit of said Road Allowance a distance of 2898.30' to the point of commencement.

FIFTHLY:

All that parcel or tract of land in the Town of Vaughan, in The Regional Municipality of York (Formerly Township of King, County of York) and in the Province of Ontario, being composed of Part of Lot 1, Concession 10, designated as Block 13 on a plan of survey deposited in the Land Registry Office for the Land Titles Division of York Region (No. 65) as Plan M-89.

SIXTHLY:

All that parcel or tract of land in the Town of Vaughan, in The Regional Municipality of York (Formerly Township of King, County of York) and in the Province of Ontario, being composed of that Part of Lot 1, Concession 10, the limits of the said parcel of land may be more particularly described as follows:

Premising that the bearings are astronomic, derived from observations on the sun at the northwest angle of Lot 35, Concession 10, Town of Vaughan and are referred to the Meridian at Longitude 79° 26' 00" W and Latitude 42° 36' 00" N.

Commencing at the southwest angle of the said Lot 1;

Thence N 73° 52' 20" E along the north limit of Road Allowance between the original Townships of King and Vaughan 3,145.97';

Thence N 12° 25' 50" W a distance of 265.24';

Thence N 32° 48' 10" E a distance of 566.72';

Thence N 05° 48' 20" W a distance of 593.24' to a point on the line between Lots 1 and 2;

Thence S 73° 39' 20" W along the said line, a distance of 235.02';

Thence S 74° 37' 30" W along the said line, a distance of 197.29';

Thence S 70° 43' 40" W along the said line, a distance of 162.68';

Thence S 76° 12' 10" W along the said line, a distance of 206.27';

Thence S 74° 02' 20" W along the said line, a distance of 617.37';

Thence S 72° 48' 10" W along the said line, a distance of 152.48';

Thence S 71° 14' 40" W along the said line, a distance of 370.42';

Thence S 75° 21' 10" W along the said line, a distance of 380.19';

Thence S 73° 27' 45" W along the said line, a distance of 1,242.15' to the northwesterly angle of Lot 1, Concession 10;

Thence S 09° 47' 20" E along the east limit of the Road Allowance between Concessions 10 and 11, a distance of 1,211.37' to the point of commencement.

SEVENTHLY:

All that parcel or tract of land in the Township of King, in The Regional Municipality of York and in the Province of Ontario, being composed of Part of Lots 2, 3 and 4, Concession 10, the limits of the said parcel of land may be more particularly described as follows:

Premising that the bearings are astronomic, derived from observations on the sun at the northwest angle of Lot 35, Concession 10, Town of Vaughan and are referred to the Meridian at Longitude 79° 26' 00" W and Latitude 42° 36' 00" N.

Commencing at the southwesterly angle of the said Lot 2;

Thence N 73° 27' 45" E along the line between Lots 1 and 2, a distance of 1,242.15';

Thence N 75° 21' 10" E along the said line, a distance of 380.19';

Thence N 71° 14' 40" E along the said line, a distance of 370.42';

Thence N 72° 48' 10" E along the said line, a distance of 152.48';

Thence N 74° 02' 20" E along the said line, a distance of 617.37';

Thence N 76° 12' 10" E along the said line, a distance of 206.26';

Thence N 70° 43' 40" E along the said line, a distance of 162.68';

Thence N 74° 37' 30" E along the said line, a distance of 197.29';

Thence N 10° 32' 30" W a distance of 1,236.39';

Thence N 10° 08' 20" W a distance of 1,220.63';

Thence N 10° 04' 30" W a distance of 1,250.74' to the line between Lots 4 and 5;

Thence S 73° 50' 10" W along the said line, a distance of 426.99';

Thence S 74° 11' 50" W along the said line, a distance of 1,169.08';

Thence S 73° 33' 40" W along the said line, a distance of 1,526.71';

Thence S 67° 54' 20" W along the said line a distance of 193.86' to the northwesterly angle of Lot 4;

Thence S 09° 51' 20" E along the east limit of Road Allowance between Concessions 10 and 11, a distance of 990.47';

Thence S 10° 06' 30" E along the said Road Allowance, a distance of 1,277.97';

Thence S 10° 10' 50" E along the said Road Allowance, a distance of 1,354.84';

Thence S 09° 47' 20" E along the said Road Allowance, a distance of 78.78' to the point of commencement.

EIGHTHLY:

All that parcel or tract of land in the Township of King, in The Regional Municipality of York and in the Province of Ontario, being Part of Lots 2 and 3, Concession 11, the limits of said parcel of land may be more particularly described as follows:

Premising that the bearings are astronomic, derived from observations on the sun at the northwest angle of Lot 35, Concession 10, Town of Vaughan, and are referred to the Meridian at Longitude 79° 26' 00" W and Latitude 42° 36' 00" N.

Commencing at the northeasterly angle of the said Lot 2;

Thence S 10° 10' 50" E along the west limit of Road Allowance between Concessions 10 and 11, a distance of 543.59';

Thence N 47° 21' 00" W a distance of 102.36';

Thence N 23° 01' 40" W a distance of 472.13';

Thence N 29° 38' 40" E a distance of 260.97' to the point west limit of Road Allowance between Concessions 10 and 11;

Thence S 10° 06' 30" E along the said Road Allowance, a distance of 198.76' to the point of commencement.

NINTHLY:

All that parcel or tract of land in the Town of Vaughan, in The Regional Municipality of York (Formerly Township of King, County of York) and in the Province of Ontario, being composed of Part of Lot 1, Concession 11, the limits of the said parcel are more particularly described as follows:

Premising that the bearings are astronomic, derived from observations on the sun at the northwest angle of Lot 35, Concession 10, Town of Vaughan and are referred to the Meridian at Longitude $79^{\circ} 26' 00''$ W and Latitude $42^{\circ} 36' 00''$ N.

Commencing at the southeasterly angle of said Lot 1;

Thence S $73^{\circ} 52' 20''$ W along the north limit of Road Allowance between Townships of King and Vaughan, a distance of 105.72';

Thence S $73^{\circ} 39' 30''$ E along the said Road Allowance, a distance of 552.83';

Thence N $20^{\circ} 28' 30''$ W a distance of 1,292.82', to the line between Lots 1 and 2;

Thence N $73^{\circ} 40' 10''$ E along the said line, a distance of 698.75';

Thence N $73^{\circ} 49' 40''$ E along the said line, a distance of 201.00' to the northeasterly angle of the said Lot 1;

Thence S $09^{\circ} 47' 20''$ E along the west limit of road Allowance between Concessions 10 and 11, a distance of 1,297.38' to the point of commencement.

TENTHLY:

All that parcel or tract of land in the Township of King, in The Regional Municipality of York and in the Province of Ontario, being Part of Lots 2 and 3, Concession 11, the limits of the said parcel of land may be more particularly described as follows:

Premising that the bearings are astronomic, derived from observations on the sun at the northwest angle of Lot 35, Concession 10, Town of Vaughan and are referred to the Meridian at Longitude $79^{\circ} 26' 00''$ W and Latitude $42^{\circ} 36' 00''$ N.

Commencing at the southeasterly angle of the said Lot 2;

Thence S $73^{\circ} 49' 40''$ W along the line between Lots 1 and 2, a distance of 201.00';

Thence S $73^{\circ} 40' 10''$ W along the said line, a distance of 698.75';

Thence S $73^{\circ} 50' 30''$ W along the said line, a distance of 338.68';

Thence S $73^{\circ} 18' 40''$ W along the said line, a distance of 340.25';

Thence S $73^{\circ} 48' 50''$ W along the said line, a distance of 340.21';

Thence S $74^{\circ} 29' 10''$ W along the said line, a distance of 340.00';

Thence S $73^{\circ} 30' 10''$ W along the said line, a distance of 1,360.48' to the southwesterly angle of said Lot 2;

Thence N $21^{\circ} 54' 20''$ W along the east limit of Road Allowance, between Township of King and the Town of Caledon, a distance of 1,356.98', to the northwesterly angle of the said Lot 2;

Thence N $73^{\circ} 22' 40''$ E along the line between said Lots 2 and 3, a distance of 117.73';

Thence N $74^{\circ} 01' 00''$ E along the said line, a distance of 2,222.12';

Thence N $26^{\circ} 29' 20''$ W a distance of 639.69';

Thence N $74^{\circ} 41' 10''$ E a distance of 400.00';

Thence N $73^{\circ} 18' 20''$ E a distance of 542.39';

Thence N $74^{\circ} 02' 00''$ E a distance of 793.72' to the west limit of Road Allowance between Concessions 10 and 11;

Thence S $10^{\circ} 06' 30''$ E along the said Road Allowance a distance of 314.77';

Thence S $29^{\circ} 38' 40''$ W a distance of 373.00';

Thence S $23^{\circ} 01' 40''$ E a distance of 516.54';

Thence S $47^{\circ} 21' 00''$ E a distance of 203.60' to the west limit of Road Allowance between Concessions 10 and 11;

Thence S $10^{\circ} 10' 50''$ E along the said Road Allowance, a distance of 701.76' to the point of commencement.

ELEVENTHLY:

All that parcel or tract of land in the Township of King, in The Regional Municipality of York and in the Province of Ontario, being Part of Lots 3, 4 and 5, Concession 11, the limits of the said parcel of land may be more particularly described as follows:

Premising that the bearings are astronomic, derived from observations on the sun at the northwest angle of Lot 25, Concession 10, Town of Vaughan and are referred to the Meridian at Longitude $79^{\circ} 26' 00''$ W and Latitude $42^{\circ} 36' 00''$ N.

Commencing at a point in the east limit of Road Allowance between the Township of King and the Town of Caledon, a distance of 628.11' measured N $21^{\circ} 54' 20''$ W from the southwest angle of Lot 3, Concession 11;

Thence N $21^{\circ} 54' 20''$ W along the said Road Allowance, a distance of 2,542.02';

Thence N $68^{\circ} 05' 40''$ E a distance of 49.03';

Thence N 25° 29' 25" W a distance of 400.00';

Thence S 68° 46' 20" W a distance of 21.69' to the east limit of Road Allowance between the Township of King and the Town of Caledon;

Thence N 21° 13' 40" W along the said Road Allowance, 337.39' to the south limit of County Road No. 11;

Thence N 73° 38' 50" E along the said south limit a distance of 1,607.02';

Thence N 73° 43' 10" E along the said south limit a distance of 433.29';

Thence N 79° 43' 00" E along the said south limit a distance of 128.20';

Thence N 89° 04' 30" E along the said south limit a distance of 62.66';

Thence N 68° 41' 30" E along the said south limit a distance of 465.22';

Thence N 73° 39' 10" E along the said south limit a distance of 407.05';

Thence S 10° 52' 10" E a distance of 598.14';

Thence S 09° 50' 40" E a distance of 562.90';

Thence S 12° 02' 40" E a distance of 140.16' to the line between Lots 4 and 5, Concession 11;

Thence S 72° 14' 10" W along the said line a distance of 386.52';

Thence S 74° 01' 40" W along the said line a distance of 239.33';

Thence S 16° 38' 30" W a distance of 145.14';

Thence S 28° 33' 20" W a distance of 148.49';

Thence S 26° 18' 10" W a distance of 128.95';

Thence S 02° 20' 30" W a distance of 312.15';

Thence S 23° 00' 40" E a distance of 602.52';

Thence S 05° 08' 20" E a distance of 305.57';

Thence S 16° 57' 20" E a distance of 161.99';

Thence S 20° 50' 40" E a distance of 302.88';

Thence S 73° 44' 30" W a distance of 776.75';

Thence S 74° 04' 40" W a distance of 917.20' to the point of commencement.

TWELFTHLY:

All that parcel or tract of land in the Town of Vaughan, in The Regional Municipality of York and in the Province of Ontario, being composed of the Part of the Road Allowance between the original townships of King and Vaughan, designated as parts 1, 2, 3 and 4 on a plan of survey deposited in the Land Registry Office for the Registry Division of York Region (No. 65) as Plan 65R-4419. O. Reg. 487/86, Sched.

(9249)

35

GAME AND FISH ACT

O. Reg. 488/86.

Wildlife Management Unit.

Made—August 13th, 1986.

Filed—August 14th, 1986.

REGULATION TO AMEND ONTARIO REGULATION 155/82 MADE UNDER THE GAME AND FISH ACT

1. The description of Wildlife Management Unit 78E as set out in the Schedule to Ontario Regulation 155/82, as made by section 1 of Ontario Regulation 337/86, is amended by adding at the end thereof the following description:

Excepting therefrom all that land known as the Nashville Tract Hunting Area as described in Ontario Regulation 487/86.

(9250)

35

MENTAL HEALTH ACT

O. Reg. 489/86.

Application of Act.

Made—August 13th, 1986.

Filed—August 15th, 1986.

**REGULATION TO AMEND
REGULATION 609 OF
REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
MENTAL HEALTH ACT**

1. Item 15 of Schedule 1 to section 1 of Regulation 609 of Revised Regulations of Ontario, 1980 is revoked and the following substituted therefor:

15. Hamilton Chedoke-McMaster Hospitals

(9253)

35

HIGHWAY TRAFFIC ACT

O. Reg. 490/86.

Speed Limits.

Made—August 14th, 1986.

Filed—August 15th, 1986.

**REGULATION TO AMEND
REGULATION 490 OF
REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
HIGHWAY TRAFFIC ACT**

- 1.—(1) Paragraph 2 of Part 3 of Schedule 30 to Regulation 490 of Revised Regulations of Ontario, 1980 is revoked and the following substituted therefor:

2. That part of the King's Highway known as No. 21 in the County of Huron lying between a point situate 915 metres measured northerly from its intersection with the line between lots 1 and 2 in Concession West of Lake Road in the Township of Stephen and a point situate 400 metres measured southerly from its intersection with the southerly limit of the roadway known as Huron Road 3 in the Township of Stanley.

- (2) Paragraph 1 of Part 5 of the said Schedule 30, as remade by subsection 2 (1) of Ontario Regulation 406/85, is revoked and the following substituted therefor:

1. That part of the King's Highway known as No. 21 in the County of Huron lying between a point situate 80 metres measured southerly from its intersection with the southerly limit of the roadway known as Agnes Street in the Village of Bayfield and a point situate 400 metres measured southerly from its intersection with the southerly limit of the roadway known as Huron Road 3 in the Township of Stanley.

EDWARD FULTON
*Minister of Transportation
and Communications*

Dated at Toronto, this 14th day of August, 1986.

(9254)

35



Publications Under The Regulations Act

September 6th, 1986

TORONTO AREA TRANSIT OPERATING AUTHORITY ACT

O. Reg. 491/86.

General.

Made—June 5th, 1986.

Approved—June 20th, 1986.

Filed—August 20th, 1986.

REGULATION TO AMEND REGULATION 935 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE TORONTO AREA TRANSIT OPERATING AUTHORITY ACT

1. The Table to Regulation 935 of Revised Regulations of Ontario, 1980, as remade by section 4 of Ontario Regulation 375/84, is revoked and the following substituted therefor:

Table Fare Conversion Table						
Single	Tens	Half	Adult	Student	St Tens	Group
1.55	14.00	0.80	49.00	30.00	11.50	6.20
1.60	14.50	0.80	50.00	31.00	12.00	6.40
1.65	15.00	0.85	52.00	32.00	12.25	6.60
1.70	15.25	0.85	53.00	33.00	12.50	6.80
1.75	15.75	0.90	55.00	35.00	13.00	7.00
1.80	16.25	0.90	57.00	36.00	13.50	7.20
1.85	16.75	0.95	58.00	37.00	13.75	7.40
1.90	17.25	0.95	60.00	38.00	14.25	7.60
1.95	17.75	1.00	62.00	39.00	14.50	7.80
2.00	18.00	1.00	63.00	40.00	15.00	8.00
2.05	18.50	1.05	65.00	41.00	15.25	8.20
2.10	19.00	1.05	66.00	42.00	15.75	8.40
2.15	19.50	1.10	68.00	43.00	16.00	8.60
2.20	19.75	1.10	69.00	44.00	16.50	8.80
2.25	20.25	1.15	71.00	45.00	16.75	9.00
2.30	20.75	1.15	72.00	46.00	17.25	9.20
2.35	21.25	1.20	74.00	47.00	17.50	9.40
2.40	21.75	1.20	76.00	47.00	17.75	9.60
2.45	22.00	1.25	77.00	48.00	18.25	9.80
2.50	22.50	1.25	79.00	49.00	18.50	10.00
2.55	23.00	1.30	80.00	50.00	19.00	10.20
2.60	23.50	1.30	82.00	52.00	19.50	10.40
2.65	24.00	1.35	84.00	53.00	19.75	10.60
2.70	24.50	1.35	85.00	54.00	20.25	10.80
2.75	24.75	1.40	87.00	55.00	20.50	11.00
2.80	25.25	1.40	88.00	56.00	21.00	11.20
2.85	25.75	1.45	90.00	57.00	21.25	11.40
2.90	26.25	1.45	91.00	58.00	21.75	11.60
2.95	26.75	1.50	93.00	59.00	22.00	11.80
3.00	27.00	1.50	95.00	60.00	22.50	12.00
3.05	27.50	1.55	96.00	61.00	22.75	12.20
3.10	28.00	1.55	98.00	62.00	23.00	12.40
3.15	28.50	1.60	99.00	63.00	23.50	12.60
3.20	28.75	1.60	101.00	64.00	23.75	12.80
3.25	29.25	1.65	102.00	65.00	24.25	13.00
3.30	29.75	1.65	104.00	65.00	24.50	13.20
3.35	30.25	1.70	105.00	66.00	25.00	13.40
3.40	30.75	1.70	107.00	67.00	25.25	13.60
3.45	31.00	1.75	109.00	68.00	25.75	13.80
3.50	31.50	1.75	111.00	70.00	26.25	14.00
3.55	32.00	1.80	112.00	71.00	26.50	14.20
3.60	32.50	1.80	114.00	72.00	27.00	14.40
3.65	33.00	1.85	115.00	73.00	27.25	14.60
3.70	33.50	1.85	117.00	74.00	27.50	14.80
3.75	33.75	1.90	118.00	75.00	28.00	15.00
3.80	34.25	1.90	120.00	76.00	28.25	15.20
3.85	34.75	1.95	121.00	77.00	28.75	15.40
3.90	35.25	1.95	123.00	78.00	29.00	15.60
3.95	35.75	2.00	124.00	79.00	29.50	15.80
4.00	36.00	2.00	126.00	80.00	29.75	16.00
4.05	36.50	2.05	128.00	81.00	30.25	16.20
4.10	37.00	2.05	129.00	82.00	30.50	16.40
4.15	37.50	2.10	131.00	83.00	31.00	16.60

Fare Conversion Table—Continued

Single	Tens	Half	Adult	Student	St Tens	Group
4.20	37.75	2.10	132.00	83.00	31.25	16.80
4.25	38.25	2.15	134.00	84.00	31.75	17.00
4.30	38.75	2.15	135.00	85.00	32.00	17.20
4.35	39.25	2.20	137.00	86.00	32.25	17.40
4.40	39.75	2.20	140.00	89.00	32.75	17.60
4.45	40.25	2.25	141.00	90.00	33.25	17.80
4.50	40.50	2.25	143.00	91.00	33.50	18.00
4.55	41.00	2.30	145.00	92.00	34.00	18.20
4.60	41.50	2.30	146.00	93.00	34.25	18.40
4.65	42.00	2.35	148.00	94.00	34.75	18.60
4.70	42.50	2.35	149.00	95.00	35.00	18.80
4.75	42.75	2.40	151.00	96.00	35.50	19.00
4.80	43.25	2.40	152.00	97.00	35.75	19.20
4.85	43.75	2.45	154.00	98.00	36.25	19.40
4.90	44.25	2.45	155.00	99.00	36.50	19.60
4.95	44.75	2.50	157.00	100.00	37.00	19.80
5.00	45.00	2.50	158.00	101.00	37.25	20.00
5.05	45.50	2.55	160.00	101.00	37.50	20.20
5.10	46.00	2.55	162.00	102.00	38.00	20.40
5.15	46.50	2.60	163.00	103.00	38.25	20.60
5.20	47.00	2.60	165.00	104.00	38.75	20.80
5.25	47.50	2.65	167.00	106.00	39.25	21.00
5.30	47.75	2.65	168.00	107.00	39.50	21.20
5.35	48.25	2.70	170.00	108.00	40.00	21.40
5.40	48.75	2.70	171.00	109.00	40.25	21.60
5.45	49.25	2.75	173.00	110.00	40.75	21.80
5.50	49.50	2.75	174.00	111.00	41.00	22.00
5.55	50.00	2.80	176.00	112.00	41.50	22.20
5.60	50.50	2.80	178.00	113.00	41.75	22.40
5.65	51.00	2.85	179.00	114.00	42.25	22.60
5.70	51.50	2.85	181.00	115.00	42.50	22.80
5.75	51.75	2.90	182.00	116.00	42.75	23.00
5.80	52.25	2.90	184.00	117.00	43.25	23.20
5.85	52.75	2.95	185.00	118.00	43.50	23.40
5.90	53.25	2.95	187.00	119.00	44.00	23.60
5.95	53.75	3.00	188.00	119.00	44.25	23.80
6.00	54.00	3.00	190.00	120.00	44.75	24.00
6.05	54.50	3.05	191.00	121.00	45.00	24.20
6.10	55.00	3.05	193.00	122.00	45.50	24.40
6.15	55.50	3.10	195.00	124.00	46.00	24.60
6.20	56.00	3.10	197.00	125.00	46.25	24.80
6.25	56.50	3.15	198.00	126.00	46.75	25.00
6.30	56.75	3.15	200.00	127.00	47.00	25.20
6.35	57.25	3.20	201.00	128.00	47.25	25.40
6.40	57.75	3.20	203.00	129.00	47.75	25.60
6.45	58.25	3.25	204.00	130.00	48.00	25.80
6.50	58.50	3.25	206.00	131.00	48.50	26.00
6.55	59.00	3.30	207.00	132.00	48.75	26.20
6.60	59.50	3.30	209.00	133.00	49.25	26.40
6.65	60.00	3.35	211.00	134.00	49.50	26.60
6.70	60.50	3.35	212.00	135.00	50.00	26.80
6.75	60.75	3.40	214.00	136.00	50.25	27.00
6.80	61.25	3.40	215.00	137.00	50.75	27.20

Fare Conversion Table—Continued

Single	Tens	Half	Adult	Student	St Tens	Group
6.85	61.75	3.45	217.00	137.00	51.00	27.40
6.90	62.25	3.45	218.00	138.00	51.50	27.60
6.95	62.75	3.50	220.00	139.00	51.75	27.80
7.00	63.00	3.50	221.00	140.00	52.00	28.00
7.05	63.50	3.55	223.00	142.00	52.50	28.20
7.10	64.00	3.55	225.00	143.00	53.00	28.40
7.15	64.50	3.60	226.00	144.00	53.25	28.60
7.20	65.00	3.60	228.00	145.00	53.75	28.80
7.25	65.50	3.65	230.00	146.00	54.00	29.00
7.30	65.75	3.65	231.00	147.00	54.50	29.20
7.35	66.25	3.70	233.00	148.00	54.75	29.40
7.40	66.75	3.70	234.00	149.00	55.25	29.60
7.45	67.25	3.75	236.00	150.00	55.50	29.80
7.50	67.50	3.75	237.00	151.00	56.00	30.00
7.55	68.00	3.80	239.00	152.00	56.25	30.20
7.60	68.50	3.80	240.00	153.00	56.75	30.40
7.65	69.00	3.85	242.00	154.00	57.00	30.60
7.70	69.50	3.85	244.00	154.00	57.25	30.80
7.75	69.75	3.90	245.00	155.00	57.75	31.00
7.80	70.25	3.90	247.00	156.00	58.00	31.20
7.85	70.75	3.95	248.00	157.00	58.50	31.40
7.90	71.25	3.95	250.00	159.00	59.00	31.60
7.95	71.75	4.00	252.00	160.00	59.25	31.80
8.00	72.25	4.00	253.00	161.00	59.75	32.00
8.05	72.50	4.05	255.00	162.00	60.00	32.20
8.10	73.00	4.05	256.00	163.00	60.50	32.40
8.15	73.50	4.10	258.00	164.00	60.75	32.60
8.20	74.00	4.10	259.00	165.00	61.25	32.80
8.25	74.50	4.15	261.00	166.00	61.50	33.00
8.30	74.75	4.15	263.00	167.00	62.00	33.20
8.35	75.25	4.20	264.00	168.00	62.25	33.40
8.40	75.75	4.20	266.00	169.00	62.50	33.60
8.45	76.25	4.25	267.00	170.00	63.00	33.80
8.50	76.50	4.25	269.00	171.00	63.25	34.00
8.55	77.00	4.30	270.00	172.00	63.75	34.20
8.60	77.50	4.30	272.00	172.00	64.00	34.40
8.65	78.00	4.35	273.00	173.00	64.50	34.60
8.70	78.50	4.35	275.00	174.00	64.75	34.80
8.75	78.75	4.40	277.00	175.00	65.25	35.00
8.80	79.25	4.40	279.00	177.00	65.75	35.20
8.85	79.75	4.45	280.00	178.00	66.00	35.40
8.90	80.25	4.45	282.00	179.00	66.50	35.60
8.95	80.75	4.50	283.00	180.00	66.75	35.80
9.00	81.25	4.50	285.00	181.00	67.00	36.00
9.05	81.50	4.55	286.00	182.00	67.50	36.20
9.10	82.00	4.55	288.00	183.00	67.75	36.40
9.15	82.50	4.60	289.00	184.00	68.25	36.60
9.20	83.00	4.60	291.00	185.00	68.50	36.80
9.25	83.50	4.65	292.00	186.00	69.00	37.00
9.30	83.75	4.65	294.00	187.00	69.25	37.20
9.35	84.25	4.70	296.00	188.00	69.75	37.40
9.40	84.75	4.70	297.00	189.00	70.00	37.60
9.45	85.25	4.75	299.00	190.00	70.50	37.80

Fare Conversion Table—Continued

Single	Tens	Half	Adult	Student	St Tens	Group
9.50	85.50	4.75	300.00	190.00	70.75	38.00
9.55	86.00	4.80	302.00	191.00	71.25	38.20
9.60	86.50	4.80	303.00	192.00	71.50	38.40
9.65	87.00	4.85	305.00	193.00	71.75	38.60
9.70	87.50	4.85	307.00	195.00	72.25	38.80
9.75	88.00	4.90	308.00	196.00	72.75	39.00
9.80	88.25	4.90	310.00	197.00	73.00	39.20
9.85	88.75	4.95	312.00	198.00	73.50	39.40
9.90	89.25	4.95	313.00	199.00	73.75	39.60
9.95	89.75	5.00	315.00	200.00	74.25	39.80
10.00	90.25	5.00	316.00	201.00	74.50	40.00
10.05	90.50	5.05	318.00	202.00	75.00	40.20
10.10	91.00	5.05	319.00	203.00	75.25	40.40
10.15	91.50	5.10	321.00	204.00	75.75	40.60
10.20	92.00	5.10	322.00	205.00	76.00	40.80
10.25	92.50	5.15	324.00	206.00	76.50	41.00
10.30	92.75	5.15	325.00	207.00	76.75	41.20
10.35	93.25	5.20	327.00	207.00	77.00	41.40
10.40	93.75	5.20	329.00	208.00	77.50	41.60
10.45	94.25	5.25	330.00	209.00	77.75	41.80
10.50	94.75	5.25	332.00	210.00	78.25	42.00
10.55	95.25	5.30	334.00	212.00	78.75	42.20
10.60	95.50	5.30	335.00	213.00	79.00	42.40
10.65	96.00	5.35	337.00	215.00	79.50	42.60
10.70	96.50	5.35	339.00	217.00	80.00	42.80
10.75	97.00	5.40	342.00	220.00	80.50	43.00
10.80	97.50	5.40	344.00	222.00	81.00	43.20
10.85	98.00	5.45	346.00	224.00	81.50	43.40
10.90	98.50	5.45	348.00	226.00	82.00	43.60
10.95	99.00	5.50	350.00	228.00	82.50	43.80
11.00	99.50	5.50	352.00	230.00	83.00	44.00
11.05	100.00	5.55	354.00	232.00	83.50	44.20
11.10	100.50	5.55	356.00	234.00	84.00	44.40
11.15	101.00	5.60	358.00	236.00	84.50	44.60
11.20	101.50	5.60	360.00	238.00	85.00	44.80
11.25	102.00	5.65	363.00	241.00	85.50	45.00
11.30	102.50	5.65	365.00	243.00	86.00	45.20
11.35	103.00	5.70	367.00	245.00	86.50	45.40
11.40	103.50	5.70	369.00	247.00	87.00	45.60
11.45	104.00	5.75	371.00	249.00	87.50	45.80
11.50	104.50	5.75	373.00	251.00	88.00	46.00
11.55	105.00	5.80	375.00	253.00	88.50	46.20
11.60	105.50	5.80	377.00	255.00	89.00	46.40
11.65	106.00	5.85	379.00	257.00	89.50	46.60
11.70	106.50	5.85	381.00	259.00	90.00	46.80
11.75	107.00	5.90	384.00	262.00	90.50	47.00
11.80	107.50	5.90	386.00	264.00	91.00	47.20
11.85	108.00	5.95	388.00	266.00	91.50	47.40
11.90	108.50	5.95	390.00	268.00	92.00	47.60
11.95	109.00	6.00	392.00	270.00	92.50	47.80
12.00	109.50	6.00	394.00	272.00	93.00	48.00
12.05	110.00	6.05	396.00	274.00	93.50	48.20
12.10	110.50	6.05	398.00	276.00	94.00	48.40

Fare Conversion Table—Continued

Single	Tens	Half	Adult	Student	St Tens	Group
12.15	111.00	6.10	400.00	278.00	94.50	48.60
12.20	111.50	6.10	402.00	280.00	95.00	48.80
12.25	112.00	6.15	405.00	283.00	95.50	49.00
12.30	112.50	6.15	407.00	285.00	96.00	49.20
12.35	113.00	6.20	409.00	287.00	96.50	49.40
12.40	113.50	6.20	411.00	289.00	97.00	49.60
12.45	114.00	6.25	413.00	291.00	97.50	49.80
12.50	114.50	6.25	415.00	293.00	98.00	50.00
12.55	115.00	6.30	417.00	295.00	98.50	50.20
12.60	115.50	6.30	419.00	297.00	99.00	50.40
12.65	116.00	6.35	421.00	299.00	99.50	50.60
12.70	116.50	6.35	423.00	301.00	100.00	50.80
12.75	117.00	6.40	426.00	304.00	100.50	51.00
12.80	117.50	6.40	428.00	306.00	101.00	51.20
12.85	118.00	6.45	430.00	308.00	101.50	51.40
12.90	118.50	6.45	432.00	310.00	102.00	51.60
12.95	119.00	6.50	434.00	312.00	102.50	51.80
13.00	119.50	6.50	436.00	314.00	103.00	52.00
13.05	120.00	6.55	438.00	316.00	103.50	52.20
13.10	120.50	6.55	440.00	318.00	104.00	52.40
13.15	121.00	6.60	442.00	320.00	104.50	52.60
13.20	121.50	6.60	444.00	322.00	105.00	52.80
13.25	122.00	6.65	447.00	325.00	105.50	53.00
13.30	122.50	6.65	449.00	327.00	106.00	53.20
13.35	123.00	6.70	451.00	329.00	106.50	53.40
13.40	123.50	6.70	453.00	331.00	107.00	53.60
13.45	124.00	6.75	455.00	333.00	107.50	53.80
13.50	124.50	6.75	457.00	335.00	108.00	54.00
13.55	125.00	6.80	459.00	337.00	108.50	54.20
13.60	125.50	6.80	461.00	339.00	109.00	54.40
13.65	126.00	6.85	463.00	341.00	109.50	54.60
13.70	126.50	6.85	465.00	343.00	110.00	54.80
13.75	127.00	6.90	468.00	346.00	110.50	55.00
13.80	127.50	6.90	470.00	348.00	111.00	55.20
13.85	128.00	6.95	472.00	350.00	111.50	55.40
13.90	128.50	6.95	474.00	352.00	112.00	55.60
13.95	129.00	7.00	476.00	354.00	112.50	55.80
14.00	129.50	7.00	478.00	356.00	113.00	56.00
14.05	130.00	7.05	480.00	358.00	113.50	56.20
14.10	130.50	7.05	482.00	360.00	114.00	56.40
14.15	131.00	7.10	484.00	362.00	114.50	56.60
14.20	131.50	7.10	486.00	364.00	115.00	56.80
14.25	132.00	7.15	489.00	367.00	115.50	57.00
14.30	132.50	7.15	491.00	369.00	116.00	57.20
14.35	133.00	7.20	493.00	371.00	116.50	57.40
14.40	133.50	7.20	495.00	373.00	117.00	57.60
14.45	134.00	7.25	497.00	375.00	117.50	57.80
14.50	134.50	7.25	499.00	377.00	118.00	58.00
14.55	135.00	7.30	501.00	379.00	118.50	58.20
14.60	135.50	7.30	503.00	381.00	119.00	58.40
14.65	136.00	7.35	505.00	383.00	119.50	58.60
14.70	136.50	7.35	507.00	385.00	120.00	58.80
14.75	137.00	7.40	510.00	388.00	120.50	59.00

Fare Conversion Table—Continued

Single	Tens	Half	Adult	Student	St Tens	Group
14.80	137.50	7.40	512.00	390.00	121.00	59.20
14.85	138.00	7.45	514.00	392.00	121.50	59.40
14.90	138.50	7.45	516.00	394.00	122.00	59.60
14.95	139.00	7.50	518.00	396.00	122.50	59.80
15.00	139.50	7.50	520.00	398.00	123.00	60.00
15.05	140.00	7.55	522.00	400.00	123.50	60.20
15.10	140.50	7.55	524.00	402.00	124.00	60.40
15.15	141.00	7.60	526.00	404.00	124.50	60.60
15.20	141.50	7.60	528.00	406.00	125.00	60.80
15.25	142.00	7.65	531.00	409.00	125.50	61.00
15.30	142.50	7.65	533.00	411.00	126.00	61.20
15.35	143.00	7.70	535.00	413.00	126.50	61.40
15.40	143.50	7.70	537.00	415.00	127.00	61.60
15.45	144.00	7.75	539.00	417.00	127.50	61.80
15.50	144.50	7.75	541.00	419.00	128.00	62.00
15.55	145.00	7.80	543.00	421.00	128.50	62.20
15.60	145.50	7.80	545.00	423.00	129.00	62.40
15.65	146.00	7.85	547.00	425.00	129.50	62.60
15.70	146.50	7.85	549.00	427.00	130.00	62.80
15.75	147.00	7.90	552.00	430.00	130.50	63.00
15.80	147.50	7.90	554.00	432.00	131.00	63.20
15.85	148.00	7.95	556.00	434.00	131.50	63.40
15.90	148.50	7.95	558.00	436.00	132.00	63.60
15.95	149.00	8.00	560.00	438.00	132.50	63.80
16.00	149.50	8.00	562.00	440.00	133.00	64.00
16.05	150.00	8.05	564.00	442.00	133.50	64.20
16.10	150.50	8.05	566.00	444.00	134.00	64.40
16.15	151.00	8.10	568.00	446.00	134.50	64.60
16.20	151.50	8.10	570.00	448.00	135.00	64.80
16.25	152.00	8.15	573.00	451.00	135.50	65.00
16.30	152.50	8.15	575.00	453.00	136.00	65.20
16.35	153.00	8.20	577.00	455.00	136.50	65.40
16.40	153.50	8.20	579.00	457.00	137.00	65.60
16.45	154.00	8.25	581.00	459.00	137.50	65.80
16.50	154.50	8.25	583.00	461.00	138.00	66.00
16.55	155.00	8.30	585.00	463.00	138.50	66.20
16.60	155.50	8.30	587.00	465.00	139.00	66.40
16.65	156.00	8.35	589.00	467.00	139.50	66.60
16.70	156.50	8.35	591.00	469.00	140.00	66.80
16.75	157.00	8.40	594.00	472.00	140.50	67.00
16.80	157.50	8.40	596.00	474.00	141.00	67.20
16.85	158.00	8.45	598.00	476.00	141.50	67.40
16.90	158.50	8.45	600.00	478.00	142.00	67.60
16.95	159.00	8.50	602.00	480.00	142.50	67.80
17.00	159.50	8.50	604.00	482.00	143.00	68.00
17.05	160.00	8.55	606.00	484.00	143.50	68.20
17.10	160.50	8.55	608.00	486.00	144.00	68.40
17.15	161.00	8.60	610.00	488.00	144.50	68.60
17.20	161.50	8.60	612.00	490.00	145.00	68.80
17.25	162.00	8.65	615.00	493.00	145.50	69.00
17.30	162.50	8.65	617.00	495.00	146.00	69.20
17.35	163.00	8.70	619.00	497.00	146.50	69.40
17.40	163.50	8.70	621.00	499.00	147.00	69.60

Fare Conversion Table—Continued

Single	Tens	Half	Adult	Student	St Tens	Group
17.45	164.00	8.75	623.00	501.00	147.50	69.80
17.50	164.50	8.75	625.00	503.00	148.00	70.00
17.55	165.00	8.80	627.00	505.00	148.50	70.20
17.60	165.50	8.80	629.00	507.00	149.00	70.40
17.65	166.00	8.85	631.00	509.00	149.50	70.60
17.70	166.50	8.85	633.00	511.00	150.00	70.80
17.75	167.00	8.90	636.00	514.00	150.50	71.00
17.80	167.50	8.90	638.00	516.00	151.00	71.20
17.85	168.00	8.95	640.00	518.00	151.50	71.40
17.90	168.50	8.95	642.00	520.00	152.00	71.60
17.95	169.00	9.00	644.00	522.00	152.50	71.80
18.00	169.50	9.00	646.00	524.00	153.00	72.00
18.05	170.00	9.05	648.00	526.00	153.50	72.20
18.10	170.50	9.05	650.00	528.00	154.00	72.40
18.15	171.00	9.10	652.00	530.00	154.50	72.60
18.20	171.50	9.10	654.00	532.00	155.00	72.80
18.25	172.00	9.15	657.00	535.00	155.50	73.00
18.30	172.50	9.15	659.00	537.00	156.00	73.20
18.35	173.00	9.20	661.00	539.00	156.50	73.40
18.40	173.50	9.20	663.00	541.00	157.00	73.60
18.45	174.00	9.25	665.00	543.00	157.50	73.80
18.50	174.50	9.25	667.00	545.00	158.00	74.00
18.55	175.00	9.30	669.00	547.00	158.50	74.20
18.60	175.50	9.30	671.00	549.00	159.00	74.40
18.65	176.00	9.35	673.00	551.00	159.50	74.60
18.70	176.50	9.35	675.00	553.00	160.00	74.80
18.75	177.00	9.40	678.00	556.00	160.50	75.00
18.80	177.50	9.40	680.00	558.00	161.00	75.20
18.85	178.00	9.45	682.00	560.00	161.50	75.40
18.90	178.50	9.45	684.00	562.00	162.00	75.60
18.95	179.00	9.50	686.00	564.00	162.50	75.80
19.00	179.50	9.50	688.00	566.00	163.00	76.00
19.05	180.00	9.55	690.00	568.00	163.50	76.20
19.10	180.50	9.55	692.00	570.00	164.00	76.40
19.15	181.00	9.60	694.00	572.00	164.50	76.60
19.20	181.50	9.60	696.00	574.00	165.00	76.80
19.25	182.00	9.65	699.00	577.00	165.50	77.00
19.30	182.50	9.65	701.00	579.00	166.00	77.20
19.35	183.00	9.70	703.00	581.00	166.50	77.40
19.40	183.50	9.70	705.00	583.00	167.00	77.60
19.45	184.00	9.75	707.00	585.00	167.50	77.80
19.50	184.50	9.75	709.00	587.00	168.00	78.00
19.55	185.00	9.80	711.00	589.00	168.50	78.20
19.60	185.50	9.80	713.00	591.00	169.00	78.40
19.65	186.00	9.85	715.00	593.00	169.50	78.60
19.70	186.50	9.85	717.00	595.00	170.00	78.80
19.75	187.00	9.90	720.00	598.00	170.50	79.00
19.80	187.50	9.90	722.00	600.00	171.00	79.20
19.85	188.00	9.95	724.00	602.00	171.50	79.40
19.90	188.50	9.95	726.00	604.00	172.00	79.60
19.95	189.00	10.00	728.00	606.00	172.50	79.80
20.00	189.50	10.00	730.00	608.00	173.00	80.00

2. Schedules 1, 2, 3, 4, 5, 6 and 7 of the said Regulation, as remade by section 2 of Ontario Regulation 333/85, are revoked and the following substituted therefor:

Schedule 1

Toronto-Oakville-Hamilton

	Toronto Rail	Etobicoke South	Port Credit Cooksville	Clarkson- Erindale	Oakville	Oakville West Bronte	Burlington	Aldershot	Hamilton
	2	3	11	12	13	14	15	16	18
Scarboro East	8	3.20	3.80	4.45	4.85	5.35	6.05	6.70	7.00
Scarboro Centre	7	2.75	3.30	3.85	4.30	4.90	5.55	6.10	6.45
Scarboro South	6	2.75	3.30	3.85	4.30	4.90	5.55	6.10	6.45
Metro North	5	1.90	2.60	3.20	3.65	4.25	4.95	5.10	5.45
Toronto Bus	1		2.70	3.20	3.75	4.30	4.30	4.95	5.25
Toronto Rail	2	1.55	2.10	2.60	3.15	3.70	4.30	4.95	5.25
Metro Northwest	4	1.55	1.90	2.40	2.90	3.40	4.05	4.70	5.00
Etobicoke South	3	1.55	1.55	2.05	2.55	3.10	3.75	4.35	4.70
Port Credit	11	1.55	1.55	1.55	2.05	2.55	3.20	3.80	4.10
Clarkson	12			1.55	1.55	2.00	2.60	3.25	3.60
Oakville	13				1.55	1.55	2.10	2.75	3.05
Oakville West	14					1.55	1.55	2.25	2.50
Burlington	15						0.90	0.90	1.80
Aldershot	16							0.90	1.55

O. Reg. 491/86, s. 2, *part*.

Schedule 2

Toronto-Streetsville-Meadowdale-Milton

	Metro North	Metro Northwest	Etobicoke South	Port Credit Cooksville	Clarkson-Brindale	Streetsville Meadowdale	Milton
	5	4	3	11	12	22	24
Scarboro East	2.10	2.85	3.20	3.80	4.45	4.65	5.60
Scarboro South			2.75	3.30	3.85	4.65	5.60
Scarboro Centre	1.55	1.55				3.90	4.85
Metro North	1.55	1.55				2.55	4.00
Metro Northwest						2.40	3.40
Toronto Rail			1.55	2.10	2.60	3.40	4.45
Etobicoke South			1.55	1.55	2.05	2.40	3.80
Port Credit				1.55	1.55	2.30	3.25
Clarkson					1.55	1.70	2.70
Streetsville						1.55	1.95
Milton							1.55

O. Reg. 491/86, s. 2, *part.*

Schedule 3

Toronto-Brampton-Georgetown-Guelph

	Metro North	Metro Northwest	Toronto Rail	Malton	Bramalea	Brampton	Huttonville	Georgetown	Silver Creek	Acton	Rockwood	Guelph
	5	4	2	31	32	33	34	35	36	37	38	39
Scarboro East	8	2.85		3.45	4.00	4.45	5.00	5.55	6.10	6.55	7.30	7.75
Scarboro Centre	7	2.25		3.00	3.65	3.95	4.55	5.10	5.70	6.10	6.85	7.35
Scarboro South	6	2.85		3.40	4.00	4.35		5.55	6.10	6.55	7.30	7.75
Metro North	5	1.55		1.80	2.40	3.00	3.75	4.50	5.00	5.55	6.30	6.75
Metro Northwest	4	1.55		1.55	2.10	2.50	3.10	3.70	4.20	4.70	5.40	5.90
Toronto Rail	2	1.55	1.55	2.50	3.10	3.45	4.00	4.60	5.15	5.60	6.35	6.80
Etobicoke South	3	1.55		1.90	2.50	2.85		4.00	4.60	5.00	5.75	6.25
Port Credit	11				2.90	2.30	2.85	3.45	4.00	4.50	5.15	5.65
Malton	31			1.55	1.55	1.85	2.40	3.00	3.60	4.00	4.75	5.15
Bramalea	32				1.55	1.55	2.00	2.50	3.10	3.60	4.25	4.75
Brampton	33					1.55	1.55	1.95	2.50	2.95	3.70	4.15
Huttonville	34						1.55	1.55	2.10	2.55	3.30	3.80
Georgetown	35							1.55	1.55	2.05	2.75	3.20
Silver Creek	36								1.55	1.55	2.20	2.60
Acton	37									1.55	1.60	2.10
Rockwood	38										1.55	1.60
Guelph	39											1.55

O. Reg. 491/86, s. 2, part.

Schedule 4

Toronto-Newmarket-Barrie-Sarnia

	Metro North	Richmond Hill-Maple	Oak Ridges-King	Aurora	Newmarket	Bradford-Queensville	Deerhurst-Keswick	Churchill-Island Grove	Stroud-Sutton	Barrie
	5	61	62	63	64	65	66	67	68	69
Scarboro South	6	2.05	2.90	3.45	4.20	4.95	5.80	6.25	6.80	7.20
Etobicoke South	3	1.90	2.90	3.40	4.20	4.95	5.80	6.20	6.75	7.15
Scarboro East	8	2.10	2.90	3.45	4.20	4.95	5.80	6.20	6.80	7.15
Toronto Rail	2	1.60	2.35	2.90	3.70	4.35	5.20	5.65	6.25	6.60
Scarboro Centre	7	2.15	2.75	3.15	3.45	4.15	5.05	5.45	6.00	6.40
Metro North	5	1.55	1.55	2.05	2.90	3.65	4.50	4.85	5.45	5.80
Metro Northwest	4	2.35	2.90	3.35	3.70	4.35	5.20	5.65	6.25	6.60
Richmond Hill	61	1.55	1.55	2.05	2.45	3.00	4.00	4.45	5.00	5.40
Oak Ridges-King	62		1.55	1.55	1.80	2.50	3.35	3.75	4.30	4.70
Aurora	63			1.55	1.55	1.95	2.80	3.15	3.80	4.10
Newmarket	64				1.55	1.55	2.35	2.75	3.30	3.70
Bradford	65					1.55	1.90	2.40	3.00	3.35
Keswick	66						1.55	1.65	2.10	2.60
Island Grove	67							1.55	1.55	1.80
Sutton	68								1.55	1.55
Barrie	69									1.55

O. Reg. 491/86, s. 2, *part.*

Schedule 5

Toronto-Markham-Stouffville-Uxbridge

	Scarboro Centre	Markham	Wideman	Stouffville	Goodwood	Uxbridge
	7	71	72	73	74	75
Etobicoke South	3	3.65	4.00	4.70	5.70	6.10
Metro Northwest	4	3.10	3.45	4.10	5.10	5.55
Metro North	5	2.05	2.55	3.35	4.30	4.80
Scarboro East	8	2.50	3.60	3.60	3.65	3.80
Toronto Bus	1	3.45	3.75	4.50	5.15	5.55
Toronto Rail	2	2.85	3.15	3.90	4.55	4.95
Scarboro South	6	2.05	2.55	3.30	3.95	4.35
Scarboro Centre	7	1.65	2.05	2.75	3.35	3.80
Markham	71	1.55	1.55	2.00	2.55	3.00
Wideman	72		1.55	1.55	2.10	2.50
Stouffville	73			1.55	1.70	2.20
Goodwood	74				1.55	1.55
Uxbridge	75					1.55

O. Reg. 491/86, s. 2, *part.*

Schedule 6

Toronto-Pickering-Oshawa-Pickering

	Metro North	Scarboro Centre	Scarboro South	Scarboro East	Pickering	Ajax	Whitby	Oshawa	Courtice	Bowmanville
	5	7	6	8	91	92	93	94	95	96
Etobicoke South	3		2.75	3.20	4.00	4.45	4.90	5.40	5.80	6.10
Metro Northwest	4	2.25	2.85	2.85	3.45	3.90	4.35	4.85	5.20	5.60
Toronto Bus	1			2.70	3.40	3.80	4.40	4.80	5.25	5.60
Toronto Rail	2		1.55	2.10	2.80	3.20	3.80	4.20	4.65	5.00
Metro North	5	1.55	2.05	2.10	2.70	3.10	3.65	4.05	4.50	4.85
Scarboro Centre	7		1.60	1.65	2.25	2.70	3.15	3.65	4.05	4.35
Scarboro South	6		1.55	1.70	2.25	2.70	3.15	3.65	4.05	4.35
Scarboro East	8			1.55	1.65	2.00	2.45	2.80	3.30	3.55
Pickering	91				1.55	1.55	1.90	2.35	2.75	3.05
Ajax	92					1.55	1.55	1.60	2.25	2.55
Whitby	93						1.55	1.55	1.80	2.15
Oshawa	94								1.55	1.65
Courtice	95								1.55	1.55
Bowmanville	96									1.55

O. Reg. 491/86, s. 2, part.

3. This Regulation comes into force on the 1st day of July, 1986.

TORONTO AREA TRANSIT OPERATING AUTHORITY:

L. H. PARSONS

A. F. LEACH

Dated at Toronto, this 5th day of June, 1986.

(9278)

36

ENVIRONMENTAL ASSESSMENT ACT

O. Reg. 492/86.

Exemption—Kanata Hydro-Electric

Commission—KANA-C-1.

Made—August 13th, 1986.

Approved—August 13th, 1986.

Filed—August 20th, 1986.

ORDER MADE UNDER THE
ENVIRONMENTAL ASSESSMENT ACTEXEMPTION—KANATA HYDRO-ELECTRIC
COMMISSION—KANA-C-1

Having received a request from the Kanata Hydro-Electric Commission that an undertaking, namely:

the activities of planning, designing, constructing, operating and maintaining the Marchwood electrical transformer substation to transform current from 115 kV to 27.6 kV, on lands to be leased by the Kanata Hydro-Electric Commission from Ontario Hydro and being Part of Lot 7, Concession 3, in the City of Kanata,

be exempt from the application of the Act pursuant to section 29; and

Having been advised by the Kanata Hydro-Electric Commission that if the undertaking is subject to the application of the Act, the following injury, damage or interference with the persons and property indicated will occur:

A. The public will be interfered with and damaged because the level of service available from the proponent will not meet anticipated demands if the facility is not in service in the near future; and

B. The proponent and its customers will be damaged and interfered with by being required to prepare an environmental assessment for an undertaking which will have only minimal adverse effect on the environment.

Having weighed such injury, damage or interference against the betterment of the people of the whole or any part of Ontario by the protection, conservation and wise management in Ontario of the environment which would result from the undertaking being subject to the application of the Act;

The undersigned is of the opinion that it is in the public interest to order and orders that the undertaking is exempt from the application of the Act for the following reasons:

A. The proponent has advised that the environmental effects of the construction and operation of the transformer station are expected to be very limited and not adverse; and

B. The public and government agencies have been made aware of the undertaking and the proponent advises that there have been no concerns raised.

This exemption is subject to the following terms and conditions:

1. Mitigation of any adverse environmental effects during construction shall be undertaken in accordance with Section 4 of Ontario Hydro's "Construction and Site Restoration Guidelines for Transmission Facilities", a copy of which is filed under File Number 2-75-0001-000 and can be found in the public records kept under section 31 of the Act by the Environmental Assessment Branch at the Ministry's main office located at 135 St. Clair Avenue West, Toronto, Ontario M4V 1P5.

2. The proponent shall advise in writing the Director of the Environmental Assessment Branch:

— when tenders for the project have been let;

— when construction has commenced; and

— how condition #1 was met within 60 days of the completion of construction.

3. This Exemption Order shall expire if construction has not commenced by June 30, 1987. O. Reg. 492/86.

JAMES BRADLEY
Minister of the Environment

(9279)

36

ENVIRONMENTAL ASSESSMENT ACT

O. Reg. 493/86.

Exemption—Ministry of Government
Services—MGS-71.

Made—August 13th, 1986.

Approved—August 13th, 1986.

Filed—August 20th, 1986.

ORDER MADE UNDER THE ENVIRONMENTAL ASSESSMENT ACT

EXEMPTION—MINISTRY OF GOVERNMENT SERVICES—MGS-71

Having received a request from the Ministry of Government Services that an undertaking, namely:

The activities of the Ontario Land Corporation and those activities of the Ministry of Government Services on behalf of the Ontario Land Corporation,

be exempt from the application of the Act pursuant to section 29; and

Having been advised that if the undertaking is subject to the application of the Act, the following injury, damage or interference with the persons and property indicated will occur:

- A. The Crown will be interfered with and damaged by loss of revenues that would result from the disposal of real property at less than the maximum price obtainable.

Having weighed such injury, damage or interference against the betterment of the people of the whole or any part of Ontario by the protection, conservation and wise management of the environment which would result from the undertaking being subject to the application of the Act;

The undersigned is of the opinion that it is in the public interest to order and orders that the undertaking is exempt from the application of the Act for the following reasons:

- A. This Order is a temporary measure to allow the Minister of Government Services the time to develop a system whereby the activities of the Ontario Land Corporation will be brought into compliance with the Act and in

the interim this work would be unduly hampered by the immediate application of the Environmental Assessment legislation.

- B. The change in the permitted use of land will be controlled and governed by the approval procedures under the *Planning Act, 1983* which procedures include provisions for considering environmental concerns, and the application of the Act would, therefore, cause undue interference under the Ontario Land Corporation program.

This exemption is subject to the following terms and conditions:

1. Where any activity, which otherwise would be exempt under this Order, is being carried out as or is part of, an undertaking for which an environmental assessment has been accepted and approval to proceed received, the activity shall be carried out in accordance with any terms or conditions in the approval to proceed as well as the conditions of this Order.
2. Where any activity, which is the subject of this Order, is being carried out as or is part of, another undertaking which is the subject of an Exemption Order under the Act, the activity exempt under this Order shall be carried out in accordance with any terms or conditions in the other Exemption Order as well as the conditions in this Order.
3. This Order will cease to apply after March 31, 1987 except to those activities for which tenders have been let. O. Reg. 493/86.

JAMES BRADLEY
Minister of the Environment

(9280)

36

ENVIRONMENTAL ASSESSMENT ACT

O. Reg. 494/86.

Exemption—The Corporation of the Township of Dysart *et al.*—DYSA-TWP-1.

Made—August 13th, 1986.

Approved—August 13th, 1986.

Filed—August 20th, 1986.

ORDER MADE UNDER THE ENVIRONMENTAL ASSESSMENT ACT

EXEMPTION—THE CORPORATION OF THE TOWNSHIP OF DYSART *ET* AL.—DYSA-TWP-1

Having received a request from The Corporation of the Township of Dysart, Bruton, Clyde, Dudley,

Eyre, Guilford, Harburn, Harcourt and Havelock that an undertaking, namely:

The activity of realigning and reconstructing approximately 4.0 kilometres of Development Road #1393 (Peterson Road) from the County line of Haliburton and Hastings Counties westerly to Haliburton County Road #10,

be exempt from the application of the Act pursuant to section 29; and

Having been advised by The Corporation of the Township of Dysart *et al.* that if the undertaking is subject to the application of the Act, the following injury, damage or interference with the persons and property indicated will occur:

- A. The safety of the public who use the Peterson Road will be adversely affected if the major deficiencies in the current road design are not corrected in the near future.
- B. The Corporation of the Township of Dysart *et al.*, and the public will be interfered with if an environmental assessment is required for a project that will not have adverse impacts on the environment.

Having weighed such injury, damage or interference against the betterment of the people of the whole or any part of Ontario by the protection, conservation and wise management in Ontario of the environment which would result from the undertaking being subject to the application of the Act;

The undersigned is of the opinion that it is in the public interest to order and orders that the undertaking is exempt from the application of the Act for the following reasons:

- A. The proponent advises that no significant adverse environmental impacts are anticipated, and that any impacts are likely to be associated with the construction period only, and those impacts are expected to be limited and mitigated accordingly.
- B. The project will benefit the public and the local economy of the neighbouring communities by providing a safe roadway.

This exemption is subject to the following terms and conditions:

- 1. Construction practices shall comply with the Ministry of the Environment publication *Evaluating Construction Activities Impacting on Water Resources* and in particular "Guidelines for Construction of Highways and Bridges, March 19, 1984", a copy of which can be obtained by contacting the Ministry's Central Regional Office.

- 2. The proponent shall include in the contract for the project a provision for general noise control measures and in the event these measures do not adequately mitigate issues for complaint the contractor shall comply with the sound level criteria for construction equipment contained in the Ministry of the Environment publication *Model Municipal Noise Control By-Law, Final Report, August, 1978*, a copy of which can be obtained by contacting the Ministry office mentioned in condition #1.
- 3. The proponent shall contact staff of the Ministry's Central Region, upon completion of the final design and before commencing construction to obtain verification, in writing, that the construction practices in condition #1 have been met in the final design.
- 4. Before commencing construction the proponent shall send a copy of the written verification required by condition #3 along with written notice of the date construction will commence to the Director of the Environmental Assessment Branch of the Ministry of the Environment for filing with the public records kept under section 31 of the Act by the Branch at the Ministry's main office located at 135 St. Clair Avenue West, Toronto, Ontario M4V 1P5. O. Reg. 494/86.

JAMES BRADLEY
Minister of the Environment

(9281) 36

ENVIRONMENTAL ASSESSMENT ACT

O. Reg. 495/86.
Exemption—Ministry of Government Services—MGS-70.
Made—August 13th, 1986.
Approved—August 13th, 1986.
Filed—August 20th, 1986.

ORDER MADE UNDER THE
ENVIRONMENTAL ASSESSMENT ACT
EXEMPTION—MINISTRY OF GOVERNMENT SERVICES—MGS-70

Having received a request from the Ministry of Government Services that an undertaking, namely:

The activities of the Ontario Mortgage Corporation and those activities of the Ministry of Government Services on behalf of the Ontario Mortgage Corporation,

be exempt from the application of the Act pursuant to section 29; and

Having been advised that if the undertaking is subject to the application of the Act, the following injury, damage or interference with the persons and property indicated will occur:

- A. The Crown will be interfered with and damaged by the undue delay and expense required to prepare environmental assessments for activities that have no significant adverse environmental effects.

Having weighed such injury, damage or interference against the betterment of the people of the whole or any part of Ontario by the protection, conservation and wise management of the environment which would result from the undertaking being subject to the application of the Act;

The undersigned is of the opinion that it is in the public interest to order and orders that the undertaking is exempt from the application of the Act for the following reasons:

- A. The undertaking is primarily related to providing finances to others for activities which are not subject to the Act and have been carried on pursuant to an existing exemption, the effect of which is ending due to a reorganization of the structure of Government so that the Ministry of Government Services will be carrying out activities on behalf of the Ontario Mortgage Corporation.
- B. The undertaking will not have any significant adverse environmental effects and, therefore, the interference with various Provincial programs which would be caused by the application of the Act would be undue.

This exemption is subject to the following terms and conditions:

1. Where any activity, which otherwise would be exempt under this Order, is being carried out as or is part of, an undertaking for which an environmental assessment has been accepted and approval to proceed received, the activity shall be carried out in accordance with any terms or conditions in the approval to proceed as well as the conditions of this Order.
2. Where any activity, which is the subject of this Order, is being carried out as or is part of, another undertaking which is the subject of an Exemption Order under the Act, the activity exempt under this Order shall be carried out in accordance with any terms or conditions in the other Exemption Order as well as the conditions in this Order.
3. This Order does not permit Ontario Mortgage Corporation to develop property other than providing financing to others,

and, if necessary enforcing any security with such financing. O. Reg. 495/86.

JAMES BRADLEY
Minister of the Environment

(9282)

36

ENVIRONMENTAL ASSESSMENT ACT

O. Reg. 496/86.

Exemption—The Regional Municipality of Niagara—NIAG-RG-1.

Made—August 13th, 1986.

Approved—August 13th, 1986.

Filed—August 20th, 1986.

ORDER MADE UNDER THE ENVIRONMENTAL ASSESSMENT ACT

EXEMPTION—THE REGIONAL MUNICIPALITY OF NIAGARA—NIAG-RG-1

Having received a request from The Regional Municipality of Niagara that an undertaking, namely:

The construction and operation of the modified Welland water treatment plant expansion for which an environmental assessment has been accepted and a conditional approval to proceed dated October 23, 1978 was issued by the Minister of the Environment,

be exempt from the application of the Act pursuant to section 29 by extending the time provided for the connection of the plant to a sewage works from that provided for in Exemption Order MOE-17 which was approved by O.C. No. 2801/79 which was published in *The Ontario Gazette* on the 10th day of November, 1979; and

Having been advised by the Ministry of the Environment that if the undertaking is subject to the application of the Act, the following injury, damage or interference with the persons and property indicated will occur:

- A. If the water treatment plant were shut down in order to avoid a continued violation of the *Environmental Assessment Act* by The Regional Municipality of Niagara, the Regional Municipality and the persons who presently receive water from the plant would be unduly interfered with by being deprived of a needed source of potable water.

Having weighed such injury, damage or interference against the betterment of the people of the whole or any part of Ontario by the protection, conservation and wise management in Ontario of the environment which would result from the undertaking being subject to the application of the Act;

The undersigned is of the opinion that it is in the public interest to order and orders that the undertaking continue to be exempt from the application of the Act for the following reasons:

- A. The Regional Municipality of Niagara which is responsible for financing the costs of the project has indicated that funding is now available to complete the undertaking;
- B. The environmental impacts associated with the completion of the construction of the project will be minor and the community will benefit from improved water quality resulting from the end of the need to discharge untreated backwash water,

And that Condition 2 of Exemption Order MOE-17 be revoked and replaced with the following:

2. A construction tender for the sewer to convey backwash water to the Welland sewage works is to be called no later than October 15, 1986.
3. The water treatment plant shall be connected by sanitary sewer to the sewage works no later than September 1, 1987.
4. The Regional Municipality of Niagara shall notify the Director of the Environmental Assessment Branch, in writing, as to the status of the project as outlined in Condition 2 and 3 within 30 days of dates indicated.
5. This Order shall expire on December 31, 1986 if construction of the project has not commenced. O. Reg. 496/86.

JAMES BRADLEY
Minister of the Environment

(9283)

36

INTERPRETATION ACT

O. Reg. 497/86.

Fees Payable under Various Acts.

Made—August 13th, 1986.

Filed—August 21st, 1986.

REGULATION TO AMEND
REGULATION 537 OF
REVISED REGULATIONS OF
ONTARIO, 1980
MADE UNDER THE
INTERPRETATION ACT

1. Section 4 of Regulation 537 of Revised Regulations of Ontario, 1980 is revoked and the following substituted therefor:

4. The fee for copies of an award filed under subsection 4 (1) of Regulation 544 of Revised Regulations of Ontario, 1980 is,

(a) 50 cents for each page unless the person requesting the copying has paid the fee described in clause (b); or

(b) \$3,000 for a copy of every award filed in a one-year period. O. Reg. 497/86, s. 1.

(9285)

36

Publications Under The Regulations Act

September 13th, 1986

PLANNING ACT, 1983

O. Reg. 498/86.

Zoning Areas—Town of Ingersoll and Township of Southwest Oxford in the County of Oxford.

Made—August 25th, 1986.

Filed—August 26th, 1986.

ORDER MADE UNDER THE PLANNING ACT, 1983

ZONING AREAS—TOWN OF INGERSOLL AND TOWNSHIP OF SOUTHWEST OXFORD IN THE COUNTY OF OXFORD

1. In this Order,

“accessory”, when used to describe a use, building or structure, means a use, building or structure that is normally incidental or subordinate to the principal use, building or structure located on the parcel of land and, without limiting the generality of the foregoing, includes,

- (a) rail and vehicular transport facilities, yards, offices, stations and depots,
- (b) an electrical substation,
- (c) fuel stations,
- (d) a firehall,
- (e) incineration facilities for the combustion of waste,
- (f) a quality control test track,
- (g) elevated, surface and underground bulk storage facilities,
- (h) storm water retention ponds,
- (i) executive and administrative offices,
- (j) computer and medical centres,
- (k) scientific, technical, research and development facilities,
- (l) parking lots,

(m) employee eating, training, recreation and day care facilities and parks, and

(n) sleeping and cooking facilities for occasional use by employees;

“motor vehicle” means an automobile, truck, bus, motorcycle, railway locomotive or other vehicle propelled or driven otherwise than by muscular power. O. Reg. 498/86, s. 1.

2. This Order applies to the land located in,

- (a) the Town of Ingersoll in the County of Oxford, being part of registered Plan 44, part of Lot 23, Concession I, part of Lot 23, Concession II and part of the existing opened road allowances for Clark Road and for South Street; and
- (b) the Township of Southwest Oxford in the County of Oxford, being part of registered Plan 44, parts of lots 23 and 24, Concession I, parts of lots 23 and 24, Concession II and part of the existing opened road allowances for Clark Road and for South Street,

which is shown as parts 1 and 2 on a Plan filed with the Plans Administration Branch, Central and Southwest, of the Ministry of Municipal Affairs at Toronto as Number 154. O. Reg. 498/86, s. 2.

3. Every use of land and every erection or use of buildings or structures on the land to which this Order applies is prohibited except,

- (a) the manufacture, assembly and processing of motor vehicles and motor vehicle parts and, without limiting the generality of the foregoing, includes the stamping, fabrication, sub-assembly, treating, finishing, packaging, testing and open storage of motor vehicles and motor vehicle parts together with the warehousing, open storage and stockpiling of patterns, tools, dies, parts and other products, goods or materials necessary to such manufacturing, assembly and processing activity;
- (b) a foundry, machine shops, paint shops, service shops, body shops and repair shops used in connection with such manufacturing, assembly and processing activity;

(c) leasing, selling and wholesale or retail distributing activities that are ancillary to the uses permitted in this section;

(d) industrial uses that are permitted in the "M2" zone in zoning by-law 81-3054 of the Town of Ingersoll, whether or not the land is located in the Town of Ingersoll or the Township of Southwest Oxford;

(e) agricultural uses that are permitted in the "A1" zone in zoning by-law 34-80 of the Township of Southwest Oxford, whether or not the land is located in the Town of Ingersoll or the Township of Southwest Oxford; and

(f) accessory uses, buildings and structures.

O. Reg. 498/86, s. 3.

4.—(1) The requirements for uses permitted by this Order are as follows:

Minimum distance between any building or structure having a gross floor area in excess of 500 square metres and any boundary of the land 15 metres

Minimum distance between any building or structure having a gross floor area of 500 square metres or less and any boundary of land 5 metres

There shall be no minimum distance requirement between any building or structure and any railway spur line.

Area reserved for employee and visitor parking 3 per cent of total area

(2) In this section, "reserved for employee and visitor parking" means the setting aside of raw land suitable for parking and includes on-site entrances and exits to the parking area.

(3) No open storage or obstructions are permitted in the areas established as minimum distance areas under subsection (1) but employee and visitor parking is permitted. O. Reg. 498/86, s. 4.

5. This Order shall be deemed for all purposes, except for the purposes of section 24 of the *Planning Act*, 1983, to be a by-law passed by the respective

councils of the municipalities in which the land is situate and to be in force in the municipalities. O. Reg. 498/86, s. 5.

BERNARD GRANDMAÎTRE
Minister of Municipal Affairs

Dated at Toronto, this 25th day of August, 1986.

(7287)

37

MILK ACT

O. Reg. 499/86.

Industrial Milk—Marketing.

Made—August 27th, 1986.

Filed—August 29th, 1986.

REGULATION TO AMEND REGULATION 623 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE MILK ACT

1. Subsection 13 (6) of Regulation 623 of the Revised Regulations of Ontario, 1980, as remade by subsection 1 (7) of Ontario Regulation 453/86, is revoked and the following substituted therefor:

(6) All Class 5a milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$40.69 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 499/86, s. 1.

2. This Regulation comes into force on the 1st day of September, 1986.

THE ONTARIO MILK MARKETING BOARD:

J. GRANT SMITH
Chairman

H. PARKER
Secretary

Dated at Mississauga, this 27th day of August, 1986.

(9309)

37

MILK ACT

O. Reg. 500/86.

Marketing of Milk to Fluid Milk Processors.

Made—August 27th, 1986.

Filed—August 29th, 1986.

**REGULATION TO AMEND
ONTARIO REGULATION 541/81
MADE UNDER THE
MILK ACT**

1. Subsection 15 (10) of Ontario Regulation 541/81, as remade by subsection 1 (7) of Ontario Regulation 452/86, is revoked and the following substituted therefor:

(10) All Class 5a milk supplied to a processor shall be sold by the marketing board and bought by the processor for not less than a minimum price of \$40.69 per hectolitre for milk containing 3.6 kilograms of milk-fat per hectolitre. O. Reg. 500/86, s. 1.

2. This Regulation comes into force on the 1st day of September, 1986.

THE ONTARIO MILK MARKETING BOARD:

J. GRANT SMITH
Chairman

H. PARKER
Secretary

Dated at Mississauga, this 27th day of August, 1986.

(9310)

37

**HEALTH PROTECTION AND
PROMOTION ACT, 1983**

O. Reg. 501/86.

Rabies—Immunization.

Made—August 28th, 1986.

Filed—August 29th, 1986.

**REGULATION TO AMEND
ONTARIO REGULATION 594/85
MADE UNDER THE
HEALTH PROTECTION AND
PROMOTION ACT, 1983**

1. Table 1 to Ontario Regulation 594/85, as amended by section 1 of Ontario Regulation 120/86 and section 3 of Ontario Regulation 287/86, is further amended by adding thereto the following items:

6. Perth County
Health Unit

October 1, 1986

7. Hastings and Prince
Edward Counties
Health Unit

September 13, 1986

2. Table 2 to the said Regulation, as made by section 4 of Ontario Regulation 287/86, is amended by adding thereto the following item:

2. Hastings and Prince Edward
Counties Health Unit

Horse, cow, bull calf, sheep, riding,
pleasure driving, show or competi-
tion horse

September 13, 1986

DRUGLESS PRACTITIONERS ACT

O. Reg. 502/86.

Physiotherapists.

Made—July 18th, 1986.

Approved—August 28th, 1986.

Filed—August 29th, 1986.

REGULATION TO AMEND REGULATION 253 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE DRUGLESS PRACTITIONERS ACT

1.—(1) Subsections 9 (1) and (3) of Regulation 253 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 614/84, are revoked and the following substituted therefor:

(1) The fee for initial registration as a physiotherapist is,

- (a) \$130, where application for registration is made on or before the 30th day of June;
- (b) \$80, where application for registration is made after the 30th day of June but on or before the 30th day of November; or
- (c) \$40, where application for registration is made after the 30th day of November.
O. Reg. 502/86, s. 1 (1), *part.*

(3) The annual fee for renewal of registration as a physiotherapist is \$100. O. Reg. 502/86, s. 1 (1), *part.*

(2) Subsection 9 (5) of the said Regulation, as made by section 1 of Ontario Regulation 614/84 and amended by section 1 of Ontario Regulation 640/85, is revoked and the following substituted therefor:

(5) The fee for re-registration as a physiotherapist is,

- (a) \$110, where application for re-registration is made on or before the 30th day of June;
- (b) \$60, where application for re-registration is made after the 30th day of June but on or before the 30th day of November; or
- (c) \$20, where application for re-registration is made after the 30th day of November,

together with an additional fee of \$50 where the registration of the person has expired under subsection 6 (3). O. Reg. 502/86, s. 1 (2).

2. Clause 14 (2) (a) of the said Regulation, as remade by section 2 of Ontario Regulation 640/85, is revoked and the following substituted therefor:

(a) \$120 a day; and

BOARD OF DIRECTORS OF PHYSIOTHERAPY:

PATRICIA A. C. HARTNETT
Chairman

RHONA WOLPERT
Registrar

Dated at Toronto, this 18th day of July, 1986.

(9312)

37

GENERAL WELFARE ASSISTANCE ACT

O. Reg. 503/86.

General.

Made—August 28th, 1986.

Filed—August 29th, 1986.

REGULATION TO AMEND REGULATION 441 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE GENERAL WELFARE ASSISTANCE ACT

1.—(1) Paragraph 4 of subsection 12 (2) of Regulation 441 of Revised Regulations of Ontario, 1980, as remade by subsection 2 (1) of Ontario Regulation 824/84, is revoked and the following substituted therefor:

4. Where the basic needs of an applicant or recipient are not determined under paragraph 1 or 2, an amount for basic needs determined in accordance with Schedule C.

(2) The Table to paragraph 6 of the said subsection 12 (2), as made by subsection 2 (1) of Ontario Regulation 824/84, is revoked and the following substituted therefor:

TABLE

Applicant or Recipient only	\$ 75
Applicant or Recipient with one Dependant (A)	\$130
(A) For each dependant in the household in addition to one, add \$5 to the amount.	

(3) Paragraph 9 of the said subsection 12 (2), as remade by subsection 2 (1) of Ontario Regulation 824/84 and amended by subsection 1 (2) of Ontario Regulation 677/85, is revoked and the following substituted therefor:

9. Subject to paragraph 11, where the cost of shelter plus the cost of fuel exceeds the appropriate amount set out in Column A of the following Table, the Welfare Administrator shall increase the budgetary requirements by an amount that is the lesser of,

(i) '80 per cent of the difference between the appropriate amount set out in Column A and the sum of the cost of shelter and the cost of fuel, or

(ii) the amount set out in Column B:

TABLE

MONTHLY AMOUNT FOR SHELTER SUBSIDY

Number of Beneficiaries	COLUMN A	COLUMN B
1	\$115	\$140
2	200	205
3	210	215
4	220	225
5	230	235
6 or more	240	245

(4) Paragraph 11 of the said subsection 12 (2), as remade by subsection 2 (1) of Ontario Regulation 824/84, is amended by striking out "Schedule D" in the third line and inserting in lieu thereof "Schedule C".

2. Schedule C to the said Regulation, as remade by section 4 of Ontario Regulation 677/85, is amended by,

(a) striking out "(Heated*)" in the third line;

(b) revoking paragraph 1;

(c) renumbering paragraph 2 as paragraph 1; and

(d) striking out "*Refer to subparagraph i of paragraph 4 of subsection 12 (3)" in the last line.

3. Schedule D to the said Regulation, as remade by section 5 of Ontario Regulation 677/85, is revoked.

4. This Regulation comes into force on the 1st day of September, 1986.

(9313)

37

FAMILY BENEFITS ACT

O. Reg. 504/86.

General.

Made—August 28th, 1986.

Filed—August 29th, 1986.

REGULATION TO AMEND
REGULATION 318 OF
REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
FAMILY BENEFITS ACT

1.—(1) Paragraph 3 of subsection 12 (3) of Regulation 318 of Revised Regulations of Ontario, 1980, as remade by subsection 3 (5) of Ontario Regulation 825/84, is revoked and the following substituted therefor:

3. Where the basic needs of an applicant or recipient are not determined under paragraph 1 or 1a, an amount for basic needs determined in accordance with Schedule C.

(2) Paragraph 4 of the said subsection 12 (3), as remade by subsection 3 (6) of Ontario Regulation 825/84, is revoked and the following substituted therefor:

4. Subject to subsection 13 (8),

(i) where basic needs are determined in accordance with Schedule C, and

(ii) where shelter costs are less than the appropriate amount set out in the following Table,

the amount for basic needs shall be reduced by the difference between the appropriate

amount shown in the following Table and the actual cost of shelter,

TABLE

Number of Beneficiaries	Amount
1	\$ 75
2(A)	\$130
(A) For each beneficiary in addition to two, add \$5 to the amount	

provided that the reduction does not exceed \$38 for one adult beneficiary, \$93 for two beneficiaries or \$93 plus \$5 for each additional beneficiary in excess of two.

(3) Paragraph 7 of the said subsection 12 (3), as remade by subsection 2 (1) of Ontario Regulation 721/81 and amended by subsection 3 (4) of Ontario Regulation 847/82, subsection 2 (4) of Ontario Regulation 784/83, subsection 3 (8) of Ontario Regulation 825/84 and subsection 1 (2) of Ontario Regulation 676/85, is revoked and the following substituted therefor:

7. Subject to paragraph 8, where the cost of shelter plus the cost of fuel exceeds the appropriate amount set out in Column A of the following Table, the Director shall increase the budgetary requirements by an amount that is the lesser of,

(i) 80 per cent of the difference between the appropriate amount set out in Column A and the sum of the cost of shelter and the cost of fuel, or

(ii) the amount set out in Column B:

TABLE

MONTHLY AMOUNT FOR SHELTER SUBSIDY

Number of Beneficiaries	COLUMN A	COLUMN B
1	\$115	\$140
2	200	205
3	210	215
4	220	225
5	230	235
6 or more	240	245

(4) Paragraph 8 of the said subsection 12 (3), as remade by subsection 3 (5) of Ontario Regulation 847/82 and amended by subsection 3 (9) of Ontario

Regulation 825/84, is further amended by striking out "Schedule D" in the third line and inserting in lieu thereof "Schedule C".

2. Schedule C to the said Regulation, as remade by subsection 8 (1) of Ontario Regulation 676/85, is amended by,

(a) striking out "(Heated*)" in the third line;

(b) revoking paragraph 1;

(c) renumbering paragraph 2 as paragraph 1; and

(d) striking out "*Refer to subparagraph i of paragraph 3 of subsection 12 (3)" in the last line.

3. Schedule D to the said Regulation, as remade by subsection 8 (1) of Ontario Regulation 676/85, is revoked.

4. This Regulation comes into force on the 1st day of September, 1986.

(9314)

37

COMMODITY BOARDS AND
MARKETING AGENCIES ACT

O. Reg. 505/86.
Levies or Charges—Milk.
Made—August 28th, 1986.
Filed—August 29th, 1986.

REGULATION TO AMEND
REGULATION 112 OF
REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
COMMODITY BOARDS AND
MARKETING AGENCIES ACT

1. Subsection 2 (1) of Regulation 112 of Revised Regulations of Ontario, 1980, as amended by section 1 of Ontario Regulation 518/82, subsection 1 (1) of Ontario Regulation 814/82 and subsection 1 (1) of Ontario Regulation 426/85, is further amended by striking out "\$30" in the ninth line and inserting in lieu thereof "\$32".

(9315)

37

MILK ACT

O. Reg. 506/86.

Milk and Milk Products.

Made—August 1st, 1986.

Approved—August 28th, 1986.

Filed—August 29th, 1986.

**REGULATION TO AMEND
REGULATION 629 OF
REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
MILK ACT**

1. Subsection 51 (2) of Regulation 629 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 658/83, is revoked and the following substituted therefor:

(2) Where the milk of a producer is tested under section 48 and found to contain an inhibitor, the producer is, in respect of the milk marketed in the same month as the milk that was tested, liable to a penalty of,

- (a) \$4 per hectolitre where there has been no previous detention of the producer's milk under subsection 49 (1);
- (b) \$6 per hectolitre where there has been one previous detention of the producer's milk under subsection 49 (1);
- (c) \$9 per hectolitre where there has been two previous detentions of the producer's milk under subsection 49 (1); and
- (d) \$12 per hectolitre where there has been three previous detentions of the producer's milk under subsection 49 (1),

within any twelve month period. O. Reg. 506/86, s. 1.

THE MILK COMMISSION OF ONTARIO:

KENNETH W. KNOX
Chairman

GLORIA MARCO BORYS
Secretary

Dated at Toronto, this 1st day of August, 1986.

MILK ACT

O. Reg. 507/86.

Cream for Processing—Plan.

Made—August 28th, 1986.

Filed—August 29th, 1986.

**REGULATION TO AMEND
REGULATION 617 OF
REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
MILK ACT**

- 1.—(1) Section 5 of the Schedule to Regulation 617 of Revised Regulations of Ontario, 1980 is revoked and the following substituted therefor:

5. The marketing board shall be composed of nine producer-members who shall hold office until their successors take office.

- (2) Paragraph 9 of subsection 6 (1) of the said Schedule is amended by striking out "Provisional" in the fifth line.

- (3) Subsection 6 (2) of the said Schedule is revoked and the following substituted therefor:

(2) A producer whose place of production is located in a county, regional municipality or territorial district mentioned in subsection (1) is a member of the local group of producers for that county, regional municipality or territorial district.

(3) A producer whose place of production is not located in a county, regional municipality or territorial district mentioned in subsection (1) is a member of the local group of producers for the county, regional municipality or territorial district nearest to his or her place of production.

- (4) Sections 7 to 11 of the said Schedule are revoked and the following substituted therefor:

7. There shall be a committee in each district to be known as the "District Cream Producers' Committee".

8. On or before the 1st day of November in each year, the members of each local group of producers shall elect from among themselves one member for each twenty-five producers or fraction thereof to its District Cream Producers' Committee.

9.—(1) Each District Cream Producers' Committee shall hold its annual meeting on or before the 30th day of November in each year.

(2) At its annual meeting,

- (a) in 1986, in 1987 and in every third year thereafter each of the District Cream Producers' Committees for Districts 2, 5 and 8;
- (b) in 1986, in 1988 and in every third year thereafter each of the District Cream Producers' Committees for Districts 1, 4 and 7; and
- (c) in 1986 and in every third year thereafter each of the District Cream Producers' Committee for Districts 3, 6 and 9,

shall elect one member of the marketing board for a term commencing at the conclusion of the annual meeting of the marketing board.

10.—(1) Where a District Cream Producers' Committee does not elect a member to the marketing board in accordance with section 9 or this section, the marketing board may appoint a producer to the marketing board.

(2) Where a member elected or appointed to the marketing board dies, resigns or is unable or unwilling to act as a member, the other members of the marketing board may appoint a producer to replace that member for the unexpired term.

(3) Where a member elected or appointed to the marketing board ceases to be a producer and does not resign from the marketing board, the member shall be deemed to be a producer-member for the purpose of holding office until the conclusion of the next annual meeting of the marketing board.

(4) At its next annual meeting, the District Cream Producers' Committee for the district from which the member referred to in subsection (3) was elected or appointed shall elect a producer to replace that member for the unexpired term.

11. No person is eligible for election or appointment to the marketing board from a district unless the person is a member of a local group of producers for a county, regional municipality or territorial district within the district.

(9317)

37

CROP INSURANCE ACT (ONTARIO)

O. Reg. 508/86.

Crop Insurance Plan—Carrots.

Made—July 18th, 1986.

Approved—August 28th, 1986.

Filed—August 29th, 1986.

REGULATION TO AMEND ONTARIO REGULATION 217/82 MADE UNDER THE CROP INSURANCE ACT (ONTARIO)

1.—(1) Paragraphs 2 and 3, as amended by section 4 of Ontario Regulation 271/83 and section 7 of Ontario Regulation 293/85, and paragraph 4 and the headings immediately before paragraphs 3 and 4 of Form 2 of Ontario Regulation 217/82 are revoked and the following substituted therefor:

2.—(1) Where,

(a) all the acres intended to be planted to spring grown crops are offered for insurance,

(i) where the spring grown crops intended to be planted include onions, by the 1st day of April in the crop year in the case, or

(ii) where the spring grown crops intended to be planted do not include onions, by the date required by the regulations in the case;

(b) the insured person so elects on the application for insurance and pays the premium deposit required by the regulations for each spring grown crop intended to be planted; and

(c) the planting,

(i) in the case of systematically tile drained land, of three acres or more, or

(ii) in the case of land that is not systematically tile drained, of six acres or more,

is prevented by one or more of the designated perils,

an indemnity shall be paid,

(d) in the case of systematically tile drained land, for each acre; or

(e) in the case of land that is not systematically tile drained, for each acre in excess of three,

that remains unplanted, the amount of which shall be equal to one-third of the guaranteed production per acre of the crop highest in priority on the list in the Table to Ontario Regulation 217/82 of those intended to be planted and insured by the insured person multiplied by the established price applicable to that crop.

(2) This paragraph does not apply to, and no indemnity is payable in respect of land,

(a) that is orchard land, pasture, woodland, seeded to a perennial crop, fall sown or intended for summer fallow;

(b) that is untilled and was not cropped in the previous year; or

(c) that, in the opinion of the Commission, is not insurable.

(3) Where the planting is prevented by excessive rainfall, no indemnity is payable unless the insured person establishes that,

(a) an abnormal amount of rain occurred;

(b) the rainfall resulted in a reduced number of work days; and

(c) a significant number of other insured persons were similarly affected,

during the planting season in the area where the insured acreage is situate.

3.—(1) Where loss or damage to one acre or more of carrots resulting from an insured peril occurs prior to the final date for planting in the crop year, the Commission, upon application therefor in writing by the insured person, may consent in writing to the replanting of the damaged acreage.

(2) Where the damaged acreage is replanted to a spring grown crop in accordance with subparagraph (1), the Commission shall pay an indemnity equal to the cost of materials used in replanting to a maximum of \$300 for each acre replanted and the contract of insurance shall continue to apply to such acreage.

(3) The total number of acres of carrots in respect of which a replanting benefit is paid in a crop year shall not in any case exceed the total number of insured acres planted to carrots.

4.—(1) Where loss or damage occurs prior to harvest, the Commission, upon application therefor in writing by the insured person, may consent in writing to the use of the damaged acreage for any other purpose or to the abandonment or destruction of the insured crop on such damaged acreage and in such case shall determine the number of damaged acres and the potential production thereof.

(2) Where damaged acreage is used for any other purpose or the insured crop thereon is abandoned or destroyed in accordance with subparagraph (1), the amount of loss that shall be taken into account in the final adjustment of loss in respect of the total planted acreage shall be calculated by multiplying the difference between the guaranteed production for the damaged acreage and the potential production for the damaged acreage determined under subparagraph (1) by the established price per bushel.

(3) Where damaged acreage is not used for any other purpose or the crop thereon is not abandoned or destroyed after the Commission has consented thereto, the amount of loss calculated under subparagraph (2) shall not be taken into account in the final adjustment of loss.

(4) Where the actual production of the harvested acreage is less than the guaranteed production for such acreage, the amount of loss that shall be taken into account in the final adjustment of loss in respect of the total

planted acreage shall be calculated by multiplying the difference between the guaranteed production and the actual production by the established price per bushel.

(2) Subparagraph 6 (1) of the said Form 2 is amended by striking out "all Stage 1 and Stage 2 loss calculations" in the second line and inserting in lieu thereof "the losses calculated under paragraphs 2, 3 and 4".

(3) Subparagraph 6 (2) of the said Form 2 is revoked and the following substituted therefor:

(2) Notwithstanding subparagraph (1), no indemnity paid under paragraphs 2 and 3 shall be subject to reduction under this paragraph.

(4) Form 2 of the said Regulation is amended by adding thereto the following Table:

TABLE

Crops in Order of Priority
1. Onions grown from seed.
2. Onions grown from sets.
3. Spanish onions.
4. Carrots.

THE CROP INSURANCE COMMISSION OF ONTARIO:

M. HUFF
Chairman

J. MULDER
Secretary

Dated at Toronto, this 18th day of July, 1986.

(9318)

37

CROP INSURANCE ACT (ONTARIO)

O. Reg. 509/86.

Crop Insurance Plan—Seed Corn.

Made—June 27th, 1986.

Approved—August 28th, 1986.

Filed—August 29th, 1986.

REGULATION TO AMEND REGULATION 220 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE CROP INSURANCE ACT (ONTARIO)

1.—(1) Clause 7 (a) of the Schedule to Regulation 220 of Revised Regulations of Ontario, 1980 is revoked and the following substituted therefor:

(a) be in a form provided by the Commission;
and

(2) Clause 11 (1) (c) of the said Schedule is revoked and the following substituted therefor:

(c) a basic premium of \$13.

(3) Section 11 of the said Schedule is amended by adding thereto the following subsection:

(3) Notwithstanding any direction by an insured person in the application for insurance, the payment of the premium due in respect of the contract of insurance remains the liability of the insured person and the premium shall be paid in any event not later than ten days after written demand for payment thereof by the Commission.

2. The Table to the said Regulation is revoked and the following substituted therefor:

TABLE

Cumulative Loss Ratio of Dealer	Premium Discount	Premium Surcharge
35 per cent or less	20 per cent	
35.1 - 50 per cent	15 per cent	
50.1 - 65 per cent	10 per cent	
65.1 - 80 per cent	5 per cent	
80.1 - 124.9 per cent	nil	nil
125 - 134.9 per cent		5 per cent
135 - 144.9 per cent		10 per cent
145 - 154.9 per cent		15 per cent
155 per cent or more		20 per cent

O. Reg. 509/86, s. 2.

3. Form 1 of the said Regulation is revoked.

4.—(1) Paragraph 1 of Form 2 of the said Regulation is amended by striking out "deposit" in the fourth line.

(2) Paragraphs 2 and 3 and the headings immediately before paragraphs 2 and 3 of the said Form 2 are revoked and the following substituted therefor:

EVALUATION OF LOSS

2.—(1) Where loss or damage occurs prior to the 15th day of June in the crop year, the Commission, upon written application therefor by the insured person, may consent in writing to,

(a) the reseeding of the damaged acreage; or

(b) the use of the damaged acreage for any other purpose or to the abandonment or destruction of the insured crop on the damaged acreage and, in such case, the Commission shall determine the number of damaged acres and the potential production thereof.

(2) Where the damaged female acreage is replanted to seed corn in accordance with clause (1) (a), the Commission shall pay to the insured person a supplementary benefit of \$55 for each acre replanted and the contract of insurance shall continue to apply to the replanted acreage.

(3) Where the damaged female acreage is used for an alternative crop, the Commission shall pay to the insured person a supplementary benefit of \$55 for each

acre replanted, the replanted acreage shall be released from the contract of insurance and the guaranteed production and indemnity payable shall be reduced accordingly.

(4) Where the damaged female acreage is abandoned or destroyed in accordance with clause (1) (b), the amount of loss that shall be taken into account in the final adjustment of loss in respect of the total seeded acreage shall be calculated by multiplying the difference between the guaranteed production and the potential production determined under clause (1) (b) for the damaged acreage by the established price.

(5) Where the damaged female acreage is not used for any other purpose or the crop thereon is not abandoned or destroyed after the Commission has consented thereto, the amount of loss calculated under subparagraph (4) shall not be taken into account in the final adjustment of loss.

3.—(1) Where loss or damage occurs after the 15th day of June in the crop year, the Commission, upon written application therefor by the insured person, may consent in writing to the use of the damaged acreage for any other purpose or to the abandonment or destruction of the insured crop on such damaged acreage and, in such case, the Commission shall determine the number of damaged acres and the potential production thereof.

(2) Where,

- (a) damaged acreage is used for any other purpose or the insured crop thereon is abandoned or destroyed in accordance with subparagraph (1); or
- (b) the harvesting of any seeded acreage is not completed and the harvesting was prevented by reason of a cause of loss not insured against,

the amount of loss that shall be taken into account in the final adjustment of loss in respect of the total seeded acreage shall be calculated by multiplying,

- (c) the guaranteed production for the damaged or unharvested acreage, as the case may be; or
- (d) the amount by which the guaranteed production exceeds the potential production for the damaged or unharvested acreage,

whichever is the lesser, by the established price.

(3) Where damaged acreage is not used for any other purpose or the crop thereon is not abandoned or destroyed after the Commission has consented thereto, the amount of loss calculated under subparagraph (2) shall not be taken into account in the final adjustment of loss.

(4) Where the actual production of the acreage harvested is less than the guaranteed production for the acreage, the amount of loss that shall be taken into account in the final adjustment of loss in respect of the seeded acreage shall be calculated by multiplying the difference between the guaranteed production and the actual production by the established price.

(5) For the purposes of this plan, the final date for planting or replanting seed corn in a crop year is the 15th day of June or such other date as may be determined from time to time by the Commission.

THE CROP INSURANCE COMMISSION OF ONTARIO:

M. HUFF
Chairman

J. MULDER
Secretary

Dated at Toronto, this 27th day of June, 1986.

(5319)

37

FARM INCOME STABILIZATION ACT

O. Reg. 510/86.

Apple Stabilization, 1983-1987—
Plan.

Made—July 4th, 1986.

Approved—August 28th, 1986.

Filed—August 29th, 1986.

REGULATION TO AMEND ONTARIO REGULATION 431/83 MADE UNDER THE FARM INCOME STABILIZATION ACT

1. Section 5 of Ontario Regulation 431/83, as remade by section 1 of Ontario Regulation 656/85, is revoked and the following substituted therefor:

5.—(1) No person is eligible to receive payments under the plan for apples that the person has marketed in excess of 2,000,000 pounds in the crop year commencing the 1st day of July, 1986.

(2) Where there are two participants in a multi-farm operation, the multi-farm operation is not eligible to receive payments under the plan for apples marketed from the multi-farm operation in excess of 4,000,000 pounds in the crop year commencing the 1st day of July, 1986.

(3) Where there are three or more participants in a multi-farm operation, the multi-farm operation is not eligible to receive payments under the plan for apples

marketed from the multi-farm operation in excess of 6,000,000 pounds in the crop year commencing the 1st day of July, 1986. O. Reg. 510/86, s. 1.

2. Section 15 of the said Regulation, as made by section 2 of Ontario Regulation 656/85, is revoked and the following substituted therefor:

15. For the crop year commencing the 1st day of July, 1986, the fee payable for apples that the person intends to market under the plan during the year and for which that person is eligible to receive payment under the plan is,

- (a) \$15 per 10,000 pounds where the person has never been enrolled in the plan; and
- (b) \$15 per 10,000 pounds for all other persons. O. Reg. 510/86, s. 2.

FARM INCOME STABILIZATION COMMISSION
OF ONTARIO:

M. HUFF
Chairman

RUTH DAY
Secretary

Dated at Toronto, this 4th day of July, 1986.

(9320)

37

EDUCATION ACT

O. Reg. 511/86.

General Legislative Grants, 1985.

Made—August 7th, 1986.

Approved—August 28th, 1986.

Filed—August 29th, 1986.

**REGULATION TO AMEND
ONTARIO REGULATION 128/85
MADE UNDER THE
EDUCATION ACT**

1. Sub-subparagraph c of subparagraph i of paragraph 10 of section 1 of Ontario Regulation 128/85, as amended by sub-section 1 (4) of Ontario Regulation 466/85, is further amended by,

(a) striking out,

“E = the sum of the amounts calculated in sub-subparagraphs a and b of subparagraph i and sub-subparagraph b of subparagraph iii,

$$A = \left(\frac{\text{ADE 84}}{\text{ADE 85} + \text{ADE.ES}} - 1 \right)$$

correct to four places of decimals,”

in the eighth to twelfth lines and inserting in lieu thereof,

E = the sum of the amounts calculated in sub-subparagraphs a and b,

$$A = \left(\frac{\text{ADE.A 84}}{\text{ADE.A 85} + \text{ADE.ES}} - 1 \right)$$

correct to four places of decimals,

and

(b) striking out,

“and where ADE 85, ADE 84 and ADE 83 means the average daily enrolment respectively for the board in respect of resident-internal and non-resident day school pupils, except pupils enrolled in schools or classes for trainable retarded pupils, and in the case of ADE 84 and ADE 83 is calculated under clauses 2 (a) and (b) of Regulation 256 of Revised Regulations of Ontario, 1980 and in the case of ADE 85 is calculated under clauses 2 (a) and (b) of Ontario Regulation 127/85, “Calculation of Average Daily Enrolment”,”

in the forty-third to sixty-first lines and inserting in lieu thereof,

and where ADE 84 and ADE 83 means the average daily enrolment respectively for the board in respect of resident-internal and non-resident day school pupils, except pupils enrolled in schools or classes for trainable retarded pupils, calculated under clauses 2 (a) and (b) of Regulation 256 of Revised Regulations of Ontario, 1980, and where

ADE.A 85 and ADE.A 84 means the average daily enrolment respectively for the board in respect of resident-internal and non-resident day school pupils, except pupils enrolled in schools or classes for trainable retarded pupils or pupils enrolled in a Roman Catholic separate school board set out in Column 1 of Table 1 in the grade levels and lan-

guages of instruction set out opposite in columns 2 and 3 respectively of Table 1, and in the case of ADE.A 84 is calculated under clauses 2 (a) and (b) of Regulation 256 of Revised Regulations of Ontario, 1980 and in the case of ADE.A 85 is calculated under clauses 2 (a) and (b) of Ontario Regulation 127/85, "Calculation of Average Daily Enrolment",

2. Table 2 of the said Regulation, as made by section 6 of Ontario Regulation 466/85 and amended by section 4 of Ontario Regulation 112/86, is revoked and the following substituted therefor:

TABLE 2

Column 1	Column 2
<u>BOARD OF EDUCATION</u>	<u>ROMAN CATHOLIC SEPARATE SCHOOL BOARD</u>
Carleton Board of Education	Carleton Roman Catholic Separate School Board
Lambton County Board of Education	Lambton County Roman Catholic Separate School Board
Muskoka Board of Education	Simcoe County Roman Catholic Separate School Board
Waterloo County Board of Education	Waterloo County Roman Catholic Separate School Board
York Region Board of Education	York Region Roman Catholic Separate School Board

O. Reg. 511/86, s. 2.

SEAN CONWAY
Minister of Education

Dated at Toronto, this 7th day of August, 1986.

(9321)

37

EDUCATION ACT

O. Reg. 512/86.
General Legislative Grants, 1984.
Made—August 7th, 1986.
Approved—August 28th, 1986.
Filed—August 29th, 1986.

REGULATION TO AMEND
ONTARIO REGULATION 44/84
MADE UNDER THE
EDUCATION ACT

1.—(1) Schedule 1 to Ontario Regulation 44/84, as made by section 2 of Ontario Regulation 355/85, is amended by striking out "1.0312" where it appears

under Column 2 opposite Elementary Schools in Column 1 under the heading Prince Edward County Board of Education and inserting in lieu thereof "1.0382".

(2) The said Schedule 1 is further amended by striking out "1.0260" where it appears under Column 2 opposite Secondary Schools in Column 1 under the heading Renfrew County Board of Education and inserting in lieu thereof "1.0265".

SEAN CONWAY
Minister of Education

Dated at Toronto, this 7th day of August, 1986.

(9322)

37

EDUCATION ACT

O. Reg. 513/86.

General Legislative Grants, 1985.

Made—August 7th, 1986.

Approved—August 28th, 1986.

Filed—August 29th, 1986.

**REGULATION TO AMEND
ONTARIO REGULATION 128/85
MADE UNDER THE
EDUCATION ACT**

- 1.—(1) Paragraph 20 of section 1 of Ontario Regulation 128/85 is revoked and the following substituted therefor:
20. "G.W.F. for 1985" means, for a board, the grant weighting factor in Column 2 of Schedule 1 that is set out opposite the name of the board in Column 1 of Schedule 1.
- (2) Subparagraph i of paragraph 34 of the said section 1, as remade by subsection 1 (15) of Ontario Regulation 466/85, is revoked and the following substituted therefor:
- i. the teacher qualifications and experience adjustment factor that is set out in Column 3 of Schedule 1 opposite the name of the board in Column 1 of Schedule 1, and
2. The said Regulation is amended by adding thereto the following Schedule:

Schedule 1

DIVISIONAL BOARDS OF EDUCATION
FINAL 1985 WEIGHTING FACTORS

NAME OF BOARD	Grant Weighting Factor	Teacher Qualifications & Experience Adjustment Factor
<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
ATIKOKAN BOARD OF EDUCATION		
Elementary Schools	1.1659	.0566
Secondary Schools	1.3407	.0392
BRANT COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0008	.0287
Secondary Schools	1.0013	.0059
BRUCE COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0030	.0000
Secondary Schools	1.0418	.0000
CARLETON BOARD OF EDUCATION		
Elementary Schools	1.0010	.0238
Secondary Schools	1.0049	.0000
CENTRAL ALGOMA BOARD OF EDUCATION		
Elementary Schools	1.1556	.0446
Secondary Schools	1.1700	.0000
CHAPLEAU BOARD OF EDUCATION		
Elementary Schools	1.1674	.0303
Secondary Schools	1.5460	.0000
COCHRANE-IROQUOIS FALLS BOARD OF EDUCATION		
Elementary Schools	1.1583	.0035
Secondary Schools	1.2820	.0000
DRYDEN BOARD OF EDUCATION		
Elementary Schools	1.1964	.0000
Secondary Schools	1.2279	.0000
DUFFERIN COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0089	.0000
Secondary Schools	1.0278	.0000
DURHAM BOARD OF EDUCATION		
Elementary Schools	1.0010	.0000
Secondary Schools	1.0000	.0000
EAST PARRY SOUND BOARD OF EDUCATION		
Elementary Schools	1.1398	.0300
Secondary Schools	1.1149	.0000

DIVISIONAL BOARDS OF EDUCATION
FINAL 1985 WEIGHTING FACTORS

NAME OF BOARD	Grant Weighting Factor	Teacher Qualifications & Experience Adjustment Factor
<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
ELGIN COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0000	.0028
Secondary Schools	1.0121	.0000
ESPANOLA BOARD OF EDUCATION		
Elementary Schools	1.1754	.0000
Secondary Schools	1.1659	.0118
ESSEX COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0020	.0279
Secondary Schools	1.0089	.0060
FORT FRANCES-RAINY RIVER BOARD OF EDUCATION		
Elementary Schools	1.1661	.0049
Secondary Schools	1.2050	.0058
FRONTENAC COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0280	.0012
Secondary Schools	1.0270	.0000
GERALDTON BOARD OF EDUCATION		
Elementary Schools	1.2581	.0000
Secondary Schools	1.3534	.0000
GREY COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0030	.0104
Secondary Schools	1.0100	.0000
HALDIMAND BOARD OF EDUCATION		
Elementary Schools	1.0116	.0000
Secondary Schools	1.0276	.0000
HALIBURTON COUNTY BOARD OF EDUCATION		
Elementary Schools	1.1555	.0175
Secondary Schools	1.1466	.0000
HALTON BOARD OF EDUCATION		
Elementary Schools	1.0000	.0208
Secondary Schools	1.0025	.0000
BOARD OF EDUCATION FOR THE CITY OF HAMILTON		
Elementary Schools	1.0400	.0228
Secondary Schools	1.0239	.0261

DIVISIONAL BOARDS OF EDUCATION
FINAL 1985 WEIGHTING FACTORS

NAME OF BOARD	Grant Weighting Factor	Teacher Qualifications & Experience Adjustment Factor
<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
HASTINGS COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0050	.0008
Secondary Schools	1.0040	.0194
HEARST BOARD OF EDUCATION		
Elementary Schools	1.1668	.0000
Secondary Schools	1.2163	.0000
HORNEPAYNE BOARD OF EDUCATION		
Elementary Schools	1.1575	.0000
Secondary Schools	1.7015	.0000
HURON COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0040	.0179
Secondary Schools	1.0230	.0235
KAPUSKASING BOARD OF EDUCATION		
Elementary Schools	1.1952	.0089
Secondary Schools	1.1976	.0000
KENORA BOARD OF EDUCATION		
Elementary Schools	1.1883	.0072
Secondary Schools	1.1534	.0295
KENT COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0000	.0216
Secondary Schools	1.0108	.0206
KIRKLAND LAKE BOARD OF EDUCATION		
Elementary Schools	1.2085	.0552
Secondary Schools	1.2148	.0014
LAKEHEAD BOARD OF EDUCATION		
Elementary Schools	1.0940	.0437
Secondary Schools	1.0750	.0132
LAKE SUPERIOR BOARD OF EDUCATION		
Elementary Schools	1.1770	.0000
Secondary Schools	1.4092	.0000
LAMBTON COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0030	.0086
Secondary Schools	1.0103	.0287

DIVISIONAL BOARDS OF EDUCATION
FINAL 1985 WEIGHTING FACTORS

NAME OF BOARD	Grant Weighting Factor	Teacher Qualifications & Experience Adjustment Factor
<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
LANARK COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0276	.0000
Secondary Schools	1.0281	.0000
LEEDS AND GRENVILLE COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0080	.0000
Secondary Schools	1.0080	.0000
LENNOX AND ADDINGTON COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0219	.0003
Secondary Schools	1.0474	.0107
LINCOLN COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0200	.0477
Secondary Schools	1.0199	.0238
BOARD OF EDUCATION FOR THE CITY OF LONDON		
Elementary Schools	1.0201	.0357
Secondary Schools	1.0369	.0136
MANITOULIN BOARD OF EDUCATION		
Elementary Schools	1.2093	.0000
Secondary Schools	1.1577	.0104
METROPOLITAN TORONTO SCHOOL BOARD		
Elementary Schools	1.0490	.0500
Secondary Schools	1.0315	.0186
MICHIPICOTEN BOARD OF EDUCATION		
Elementary Schools	1.1566	.0148
Secondary Schools	1.3331	.0000
MIDDLESEX COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0043	.0060
Secondary Schools	1.0282	.0100
MUSKOKA BOARD OF EDUCATION		
Elementary Schools	1.1045	.0171
Secondary Schools	1.1035	.0023
NIAGARA SOUTH BOARD OF EDUCATION		
Elementary Schools	1.0220	.0509
Secondary Schools	1.0150	.0185

DIVISIONAL BOARDS OF EDUCATION
FINAL 1985 WEIGHTING FACTORS

NAME OF BOARD	Grant Weighting Factor	Teacher Qualifications & Experience Adjustment Factor
<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
NIPIGON-RED ROCK BOARD OF EDUCATION		
Elementary Schools	1.1958	.0000
Secondary Schools	1.3068	.0000
NIPISSING BOARD OF EDUCATION		
Elementary Schools	1.0879	.0446
Secondary Schools	1.0948	.0299
NORFOLK BOARD OF EDUCATION		
Elementary Schools	1.0000	.0022
Secondary Schools	1.0143	.0000
NORTH SHORE BOARD OF EDUCATION		
Elementary Schools	1.1439	.0000
Secondary Schools	1.2033	.0000
NORTHUMBERLAND AND NEWCASTLE BOARD OF EDUCATION		
Elementary Schools	1.0072	.0061
Secondary Schools	1.0069	.0000
OTTAWA BOARD OF EDUCATION		
Elementary Schools	1.0483	.0122
Secondary Schools	1.0228	.0334
OXFORD COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0000	.0000
Secondary Schools	1.0130	.0000
PEEL BOARD OF EDUCATION		
Elementary Schools	1.0127	.0209
Secondary Schools	1.0027	.0000
PERTH COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0000	.0000
Secondary Schools	1.0091	.0164
PETERBOROUGH COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0060	.0052
Secondary Schools	1.0147	.0217
PRESCOTT AND RUSSELL COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0693	.0000
Secondary Schools	1.0438	.0000

DIVISIONAL BOARDS OF EDUCATION
FINAL 1985 WEIGHTING FACTORS

NAME OF BOARD	Grant Weighting Factor	Teacher Qualifications & Experience Adjustment Factor
<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
PRINCE EDWARD COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0397	.0000
Secondary Schools	1.0734	.0203
RED LAKE BOARD OF EDUCATION		
Elementary Schools	1.1808	.0000
Secondary Schools	1.3050	.0000
RENFREW COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0360	.0212
Secondary Schools	1.0276	.0038
SAULT STE. MARIE BOARD OF EDUCATION		
Elementary Schools	1.0870	.0740
Secondary Schools	1.0832	.0250
SIMCOE COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0020	.0078
Secondary Schools	1.0222	.0000
STORMONT, DUNDAS AND GLENCARRY COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0240	.0000
Secondary Schools	1.0195	.0175
SUDBURY BOARD OF EDUCATION		
Elementary Schools	1.0970	.0406
Secondary Schools	1.0843	.0335
TIMISKAMING BOARD OF EDUCATION		
Elementary Schools	1.1828	.0000
Secondary Schools	1.1706	.0131
TIMMINS BOARD OF EDUCATION		
Elementary Schools	1.1125	.0079
Secondary Schools	1.1023	.0000
VICTORIA COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0150	.0000
Secondary Schools	1.0266	.0000
WATERLOO COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0228	.0333
Secondary Schools	1.0150	.0000

DIVISIONAL BOARDS OF EDUCATION
FINAL 1985 WEIGHTING FACTORS

NAME OF BOARD	Grant Weighting Factor	Teacher Qualifications & Experience Adjustment Factor
<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
WELLINGTON COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0010	.0101
Secondary Schools	1.0037	.0000
WENTWORTH COUNTY BOARD OF EDUCATION		
Elementary Schools	1.0018	.0136
Secondary Schools	1.0077	.0154
WEST PARRY SOUND BOARD OF EDUCATION		
Elementary Schools	1.1459	.0126
Secondary Schools	1.1194	.0137
BOARD OF EDUCATION FOR THE CITY OF WINDSOR		
Elementary Schools	1.0418	.0795
Secondary Schools	1.0246	.0385
YORK REGION BOARD OF EDUCATION		
Elementary Schools	1.0044	.0000
Secondary Schools	1.0008	.0000

ROMAN CATHOLIC
SEPARATE SCHOOL BOARDS
FINAL 1985 WEIGHTING FACTORS

ATIKOKAN RCSS BOARD	1.1667	.0000
BRANT COUNTY RCSS BOARD	1.0332	.0000
BRUCE-GREY COUNTY RCSS BOARD	1.0401	.0000
CARLETON RCSS BOARD	1.0040	.0000
CHAPLEAU DISTRICT RCSS BOARD	1.2206	.0000
COCHRANE-IROQUOIS FALLS DISTRICT RCSS BOARD	1.1789	.0000
DRYDEN DISTRICT RCSS BOARD	1.1854	.0000
DUFFERIN-PEEL RCSS BOARD	1.0000	.0000
DURHAM REGION RCSS BOARD	1.0037	.0000
ELGIN COUNTY RCSS BOARD	1.0353	.0000
ESSEX COUNTY RCSS BOARD	1.0010	.0325
FORT FRANCES-RAINY RIVER DISTRICT RCSS BOARD	1.2010	.0000

FINAL 1985 WEIGHTING FACTORS

NAME OF BOARD	Grant Weighting Factor	Teacher Qualifications & Experience Adjustment Factor
<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
FRONTENAC-LENNOX AND ADDINGTON COUNTY RCSS BOARD	1.0436	.0000
GERALDTON DISTRICT RCSS BOARD	1.2380	.0000
HALDIMAND-NORFOLK RCSS BOARD	1.0727	.0000
HALTON RCSS BOARD	1.0013	.0000
HAMILTON-WENTWORTH RCSS BOARD	1.0411	.0130
HASTINGS-PRINCE EDWARD COUNTY RCSS BOARD	1.0425	.0000
HEARST DISTRICT RCSS BOARD	1.1652	.0000
HURON-PERTH COUNTY RCSS BOARD	1.0745	.0000
KAPUSKASING DISTRICT RCSS BOARD	1.1659	.0048
KENORA DISTRICT RCSS BOARD	1.1800	.0000
KENT COUNTY RCSS BOARD	1.0140	.0089
KIRKLAND LAKE DISTRICT RCSS BOARD	1.1853	.0000
LAKEHEAD DISTRICT RCSS BOARD	1.0976	.0493
LAMBTON COUNTY RCSS BOARD	1.0026	.0000
LANARK-LEEDS AND GRENVILLE COUNTY RCSS BOARD	1.0447	.0000
LINCOLN COUNTY RCSS BOARD	1.0220	.0219
LONDON AND MIDDLESEX COUNTY RCSS BOARD	1.0190	.0285
METROPOLITAN SEPARATE SCHOOL BOARD	1.0548	.0019
MICHIPICOTEN DISTRICT RCSS BOARD	1.1930	.0000
NIPISSING DISTRICT RCSS BOARD	1.0940	.0243
NORTH OF SUPERIOR DISTRICT COMBINED RCSS BOARD	1.2611	.0000
NORTH SHORE DISTRICT RCSS BOARD	1.1321	.0000
OTTAWA RCSS BOARD	1.0300	.0130

FINAL 1985 WEIGHTING FACTORS

NAME OF BOARD	Grant Weighting Factor	Teacher Qualifications & Experience Adjustment Factor
<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
OXFORD COUNTY RCSS BOARD	1.0629	.0000
PETERBOROUGH-VICTORIA-NORTHUMBERLAND AND NEWCASTLE RCSS BOARD	1.0160	.0000
PRESCOTT AND RUSSELL COUNTY RCSS BOARD	1.0350	.0000
RENFREW COUNTY RCSS BOARD	1.0578	.0121
SAULT STE. MARIE DISTRICT RCSS BOARD	1.0800	.0335
SIMCOE COUNTY RCSS BOARD	1.0243	.0000
STORMONT, DUNDAS AND GLENGARRY COUNTY RCSS BOARD	1.0370	.0000
SUDBURY DISTRICT RCSS BOARD	1.0940	.0000
TIMISKAMING DISTRICT RCSS BOARD	1.1536	.0000
TIMMINS DISTRICT RCSS BOARD	1.0960	.0000
WATERLOO COUNTY RCSS BOARD	1.0230	.0181
WELLAND COUNTY RCSS BOARD	1.0230	.0585
WELLINGTON COUNTY RCSS BOARD	1.0139	.0000
WINDSOR RCSS BOARD	1.0405	.0363
YORK REGION RCSS BOARD	1.0035	.0000

O. Reg. 513/86, s. 2.

SEAN CONWAY
Minister of Education

Dated at Toronto, this 7th day of August, 1986.

(9323)

37

COURTS OF JUSTICE ACT, 1984

O. Reg. 514/86.
Salaries and Benefits of
Provincial Judges.
Made—August 28th, 1986.
Filed—August 29th, 1986.

REGULATION TO AMEND
REGULATION 811 OF
REVISED REGULATIONS OF
ONTARIO, 1980
MADE UNDER THE
COURTS OF JUSTICE ACT, 1984

1. Section 2 of Regulation 811 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 547/85, is revoked and the following substituted therefor:
2. The annual salary of a judge in a position referred to in Column 1 of the Schedule is the salary set out opposite thereto in Column 2 for service on and after the 1st day of April, 1986. O. Reg. 514/86, s. 1.

2. The Schedule to the said Regulation, as remade by section 2 of Ontario Regulation 547/85, is revoked and the following substituted therefor:

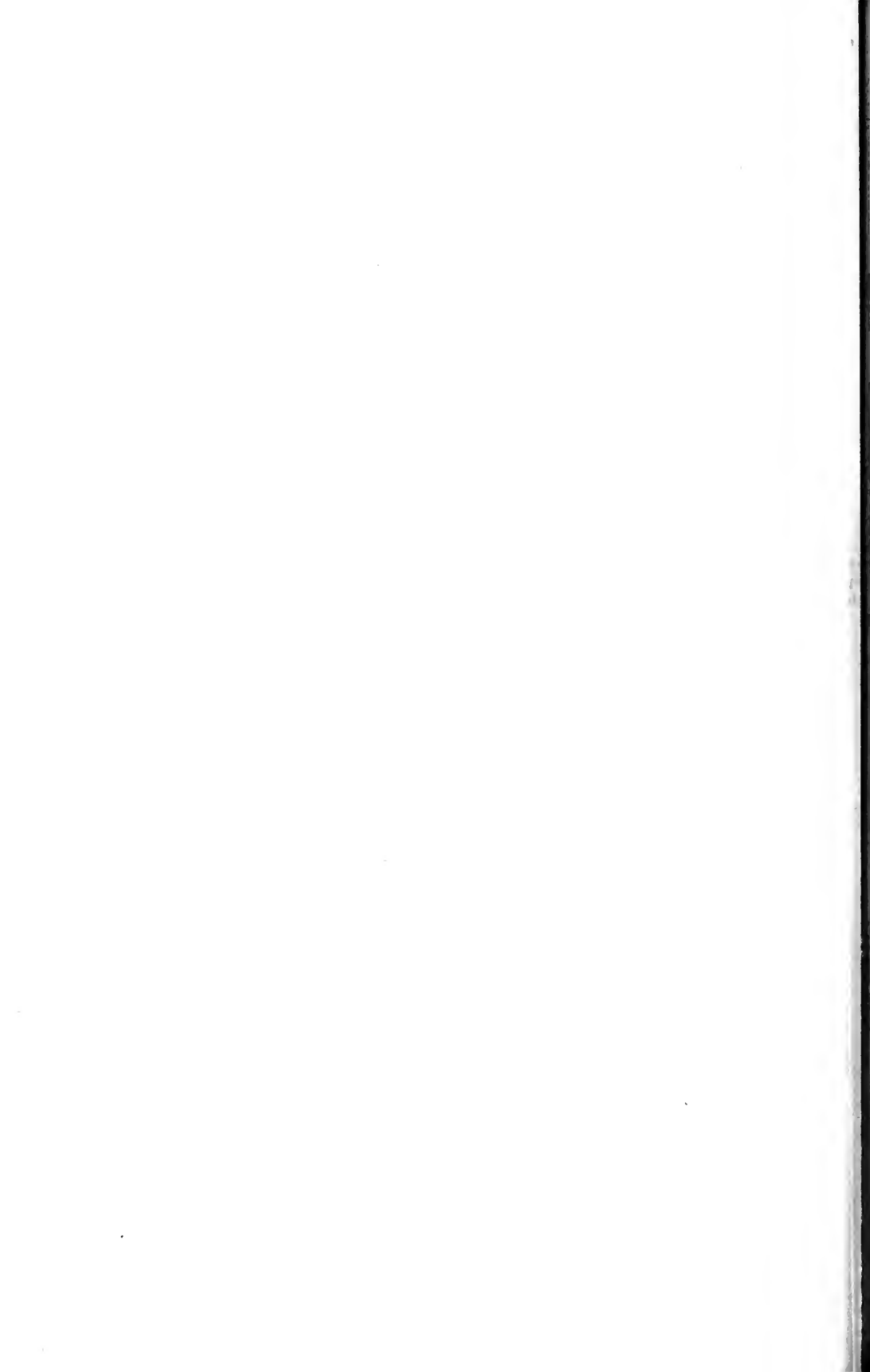
Schedule

COLUMN 1	COLUMN 2
Chief Judge of the Provincial Court	\$86,665
Associate Chief Judge of the Provincial Court	82,540
Senior Judge of the Provincial Court	79,454
Provincial Judge	78,000

O. Reg. 514/86, s. 2.

(9324)

37



Publications Under The Regulations Act

September 20th, 1986

PLANNING ACT, 1983

O. Reg. 515/86.

Restricted Areas—County of Simcoe,
Township of Nottawasaga.

Made—August 29th, 1986.

Filed—September 2nd, 1986.

REGULATION TO AMEND REGULATION 675 OF REVISED REGULATIONS OF ONTARIO, 1970 MADE UNDER THE PLANNING ACT, 1983

1. Regulation 675 of Revised Regulations of Ontario, 1970 is amended by adding thereto the following sections:

238.—(1) Notwithstanding any other provision of this Order, a single-family dwelling and buildings and structures accessory thereto may be erected and used on the land described in subsection (2) if the following requirements are met:

Minimum front yard	7.6 metres
Minimum side yards	3 metres on one side and 1.2 metres on the other side
Maximum height of single-family dwelling	9.1 metres
Minimum ground floor area of single-family dwelling	one storey—93 square metres one and one-half storeys or more—69.8 square metres

(2) Subsection (1) applies to that parcel of land in the Township of Nottawasaga in the County of Simcoe, being that part of Lot 3 in Concession III described as Part 1 on a Plan deposited in the Land Registry Office for the Registry Division of Simcoe (No. 51) as Number 51R-14684. O. Reg. 515/86, s. 1, *part*.

239.—(1) Notwithstanding any other provision of this Order, one seasonal dwelling and buildings and structures accessory thereto may be erected and used on each of the lands described in subsections (3), (4) and (5) if the following requirements are met:

Minimum front yard	7.6 metres
Minimum side yards	3 metres on one side and 1.2 metres on the other side
Maximum height of each seasonal dwelling	9.1 metres
Minimum ground floor area of each seasonal dwelling	one storey—93 square metres one and one-half storeys or more—69.8 square metres

(2) For lands described in subsections (3) and (4), the front yard is the distance between any building or structure and the lot line abutting Glenlake Boulevard.

(3) Subsection (1) applies to that parcel of land in the Township of Nottawasaga in the County of Simcoe, being that part of Lot 38 in Concession V described as parts 6 and 11 on a Plan deposited in the Land Registry Office for the Registry Division of Simcoe (No. 51) as Number 51R-679.

(4) Subsection (1) applies to that parcel of land in the Township of Nottawasaga in the County of Simcoe, being that part of Lot 38 in Concession V described as parts 5 and 12 on a Plan deposited in the Land Registry Office for the Registry Division of Simcoe (No. 51) as Number 51R-679.

(5) Subsection (1) applies to that parcel of land in the Township of Nottawasaga in the County of Simcoe, being lots 110 and 111 according to a Plan registered in the Land Registry Office for the Registry Division of Simcoe (No. 51) as Number 1096. O. Reg. 515/86, s. 1, *part*.

240.—(1) Notwithstanding any other provision of this Order, a single-family dwelling and buildings and structures accessory thereto may be erected and used on each of the lands described in subsections (2) and (3) if the following requirements are met:

Minimum front yard	7.6 metres
Minimum side yards	3 metres on one side and 1.2 metres on the other side
Maximum height of single-family dwelling	9.1 metres
Minimum ground floor area of each single- family dwelling	one storey—93 square metres one and one-half storeys or more—69.8 square metres

(2) Subsection (1) applies to that parcel of land in the Township of Nottawasaga in the County of Simcoe, being Lot 10 according to a Plan registered in the Land Registry Office for the Registry Division of Simcoe (No. 51) as Number 111.

(3) Subsection (1) applies to that parcel of land in the Township of Nottawasaga in the County of Simcoe, being Lot 11 according to a Plan registered in the Land Registry Office for the Registry Division of Simcoe (No. 51) as Number 111. O. Reg. 515/86, s. 1, *part.*

L. J. FINCHAM
Director
Plans Administration Branch
Central and Southwest
Ministry of Municipal Affairs

Dated at Toronto, this 29th day of August, 1986.

(9325)

38

GAME AND FISH ACT

O. Reg. 516/86.

Open Seasons—Moose and Deer.

Made—August 13th, 1986.

Filed—September 2nd, 1986.

REGULATION TO AMEND REGULATION 428 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE GAME AND FISH ACT

1.—(1) Schedule 3 to Ontario Regulation 428 of Revised Regulations of Ontario, 1980, as remade by section 3 of Ontario Regulation 336/86, is amended by striking out “82A, 82B, 84” in Column 1 of Item 31.

(2) The said Schedule 3 is amended by adding thereto the following items:

ITEM	Wildlife Management Units	Open Seasons Residents	Open Seasons Non-Residents	Conditions
44.	60B	From the first Monday in November to the second Saturday next following		Only shotgun may be used. No person shall use or be accompanied by a dog.
45.	82A, 82B, 84	From the third Monday in October to the second Sunday in December excluding the period from the first Monday in November to the Friday next following, both inclusive in any year		Only bows and arrows may be used. No person shall use or be accompanied by a dog.

(9326)

GAME AND FISH ACT

O. Reg. 517/86.

Bobwhite Quail, Wild Turkey and Pheasant—

Propagation and Sales.

Made—August 28th, 1986.

Filed—September 2nd, 1986.

REGULATION TO AMEND REGULATION 404 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE GAME AND FISH ACT

1. Subsection 1 (4) of Regulation 404 of Revised Regulations of Ontario, 1980 is amended by striking out "\$10" and inserting in lieu thereof "\$15".
2. This Regulation comes into force on the 1st day of April, 1987.

(9327)

38

GAME AND FISH ACT

O. Reg. 518/86.

Furs.

Made—August 28th, 1986.

Filed—September 2nd, 1986.

REGULATION TO AMEND REGULATION 415 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE GAME AND FISH ACT

1. Clause 2 (2) (a) of Regulation 415 of Revised Regulations of Ontario, 1980, as amended by section 1 of Ontario Regulation 700/84, is revoked and the following substituted therefor:

(a) \$5.50 for that part of Ontario that is south of the most northerly east-west line of the Canadian National Railway Company; and

2. Subsection 11 (1) of the said Regulation, as amended by subsection 2 (1) of Ontario Regulation 700/84, is revoked and the following substituted therefor:

(1) A licence issued to a person to buy, sell or trade in pelts shall be in Form 3 and the fee for it is \$28.
O. Reg. 518/86, s. 2.

3. Form 1 of the said Regulation, as remade by section 10 of Ontario Regulation 203/82 and amended by subsection 3 (1) of Ontario Regulation 700/84, is further amended by striking out "Licence fee: \$5.25".

4. Form 3 of the said Regulation, as remade by section 3 of Ontario Regulation 519/85, is amended by striking out "Licence fee: \$26.25".

- 5.—(1) Section 1 of this Regulation comes into force on the 1st day of September, 1987.

- (2) Section 2 of this Regulation comes into force on the 1st day of July, 1987.

(9328)

38

GAME AND FISH ACT

O. Reg. 519/86.

Hunting Licences.

Made—August 28th, 1986.

Filed—September 2nd, 1986.

REGULATION TO AMEND REGULATION 420 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE GAME AND FISH ACT

1. Subsection 6 (3) of Regulation 420 of Revised Regulations of Ontario, 1980 is revoked and the following substituted therefor:

(3) The fee for an examination is \$5. O. Reg. 519/86, s. 1.

2. Subsection 7 (2) of the said Regulation, as amended by section 3 of Ontario Regulation 502/81 and section 1 of Ontario Regulation 184/84, is further amended by striking out "\$5.25" in the sixth line and inserting in lieu thereof "\$5.50".

3. Schedule 3 to the said Regulation, as remade by section 1 of Ontario Regulation 699/84 and amended by section 1 of Ontario Regulation 781/84, is revoked and the following substituted therefor:

Schedule 3

COLUMN 1	COLUMN 2	COLUMN 3
Form	Fee	Issuing Fee
1	\$ 16.00	\$1.50
2	11.00	.50
3	21.50	1.50
4	9.50	.50
5	5.00	.50
6	35.25	1.50
7	78.50	1.50
8	198.00	2.00
9	23.50	1.50
10	50.00	NIL
11	.50	.50
13	5.50	NIL
14	4.75	.50
15	5.50	NIL
16	5.25	.50

O. Reg. 519/86, s. 3.

4.—(1) Form 1 of the said Regulation, as amended by section 3 of Ontario Regulation 184/84 and section 2 of Ontario Regulation 699/84, is further amended by striking out "Licence fee \$15.00", "Issuing fee \$1.50" and "Total fee \$16.50".

(2) Form 2 of the said Regulation, as amended by section 3 of Ontario Regulation 184/84 and section 2 of Ontario Regulation 699/84, is further amended by striking out "Licence fee \$10.50", "Issuing fee 0.50" and "Total fee 11.00".

(3) Form 3 of the said Regulation, as remade by section 4 of Ontario Regulation 138/83 and amended by section 3 of Ontario Regulation 184/84 and section 2 of Ontario Regulation 699/84, is further amended by striking out "Licence fee \$20.50", "Issuing fee \$1.50" and "Total fee \$22.00".

(4) Form 4 of the said Regulation is amended by striking out "Licence fee \$9.50", "Issuing fee 0.50" and "Total fee 10.00".

(5) Form 5 of the said Regulation, as remade by section 2 of Ontario Regulation 624/85, is amended by striking out "Licence fee \$5.00", "Issuing fee \$0.50" and "Total fee \$5.50".

(6) Form 6 of the said Regulation, as amended by section 2 of Ontario Regulation 185/84, is further amended by striking out "Licence fee \$35.25", "Issuing fee \$1.50" and "Total fee \$36.75".

(7) Form 7 of the said Regulation is amended by striking out "Licence fee \$78.50", "Issuing fee 1.50" and "Total fee 80.00".

(8) Form 8 of the said Regulation, as remade by section 4 of Ontario Regulation 138/83, is amended by striking out "Licence fee \$198.00", "Issuing fee \$2.00" and "Total fee \$200.00".

(9) Form 9 of the said Regulation is amended by striking out "Licence fee \$23.50", "Issuing fee \$1.50" and "Total fee \$25.00".

(10) Form 10 of the said Regulation is amended by striking out "Licence Fee \$50.00".

(11) Form 11 of the said Regulation is amended by striking out "Tag fee \$0.50", "Issuing fee \$0.50" and "Total fee \$1.00".

(12) Form 13 of the said Regulation, as amended by section 2 of Ontario Regulation 185/84 and section 2 of Ontario Regulation 699/84, is further amended by striking out "Total fee \$5.50".

(13) Form 14 of the said Regulation, as amended by section 2 of Ontario Regulation 185/84, is further amended by striking out "Tag fee \$4.75", "Issuing fee \$0.50" and "Total fee \$5.25".

(14) Form 15 of the said Regulation, as amended by section 2 of Ontario Regulation 185/84 and section 2 of Ontario

Regulation 699/84, is further amended by striking out "Licence fee \$5.50".

- (15) Form 16 of the said Regulation, as amended by section 3 of Ontario Regulation 184/84 and section 2 of Ontario Regulation 699/84, is further amended by striking out "Licence fee \$5.00", "Issuing fee .50" and "Total fee \$5.50".

- (16) Form 20 of the said Regulation, as amended by section 4 of Ontario Regulation 502/81 and section 3 of Ontario Regulation 184/84, is further amended by striking out "Please include an application fee of \$5.25 with this form".

5. This Regulation comes into force on the 1st day of January, 1987.

(9329)

38

GAME AND FISH ACT

O. Reg. 520/86.

Hunting Licences.

Made—August 28th, 1986.

Filed—September 2nd, 1986.

REGULATION TO AMEND REGULATION 420 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE GAME AND FISH ACT

1. Schedule 3 to Regulation 420 of Revised Regulations of Ontario, 1980, as remade by section 3 of Ontario Regulation 519/86, is amended by striking out,

- (a) "5.00" in column 2 opposite Form 5 in column 1 and inserting in lieu thereof "5.25";
- (b) "35.25" in column 2 opposite Form 6 in column 1 and inserting in lieu thereof "36.50";
- (c) "5.50" in column 2 opposite Form 13 in column 1 and inserting in lieu thereof "5.75";

- (d) "4.75" in column 2 opposite Form 14 in column 1 and inserting in lieu thereof "5.00"; and
- (e) "5.50" in column 2 opposite Form 15 in column 1 and inserting in lieu thereof "5.75".

2. This Regulation comes into force on the 1st day of September, 1987.

(9330)

38

GAME AND FISH ACT

O. Reg. 521/86.

Hunting on Designated Crown Land and in Provincial Parks.

Made—August 28th, 1986.

Filed—September 2nd, 1986.

REGULATION TO AMEND REGULATION 422 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE GAME AND FISH ACT

1. Schedule 1 of Regulation 422 of Revised Regulations of Ontario, 1980 is revoked and the following substituted therefor:

Schedule 1

COLUMN 1	COLUMN 2
Form No.	Fee
1	\$10
2	10
3	12
4	12

O. Reg. 521/86, s. 1.

- 2.—(1) Form 1 of the said Regulation is amended by striking out "Licence Fee \$8.00".
- (2) Form 2 of the said Regulation is amended by striking out "Licence Fee \$8.00".
- (3) Form 3 of the said Regulation is amended by striking out "Licence Fee \$8.00".

- (4) Form 4 of the said Regulation is amended by striking out "Licence Fee \$8.00".

3. This Regulation comes into force on the 1st day of January, 1987.

(9331)

38

GAME AND FISH ACT

O. Reg. 522/86.

Bullfrogs.

Made—August 28th, 1986.

Filed—September 2nd, 1986.

REGULATION TO AMEND ONTARIO REGULATION 694/81 MADE UNDER THE GAME AND FISH ACT

1. Subsection 1 (1) of Ontario Regulation 694/81 is amended by striking out "\$25" in the third line and inserting in lieu thereof "\$26.25".
2. Form 1 of the said Regulation is amended by striking out "Licence Fee \$25.00".
3. This Regulation comes into force on the 1st day of January, 1987.

(9332)

38

GAME AND FISH ACT

O. Reg. 523/86.

Fire-Arms—Aulneau Peninsula.

Made—August 28th, 1986.

Filed—September 2nd, 1986.

REGULATION TO AMEND REGULATION 412 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE GAME AND FISH ACT

1. Subsection 2 (1) of Regulation 412 of Revised Regulations of Ontario, 1980, as amended by section 2 of Ontario Regulation 428/82, is further amended by striking out "low powered" in the third line and inserting in lieu thereof "rim-fire".

(9333)

38

GAME AND FISH ACT

O. Reg. 524/86.

Hunting Licences.

Made—August 28th, 1986.

Filed—September 2nd, 1986.

REGULATION TO AMEND REGULATION 420 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE GAME AND FISH ACT

- 1.—(1) Section 10 of Regulation 420 of Revised Regulations of Ontario, 1980 is amended by striking out "low-powered" wherever it appears in clauses (1) (a), (3) (a), (5) (a), (6) (a), (7) (a) and (8) (a) and inserting in lieu thereof "rim-fire" in each instance.
- (2) Subsection 10 (11) of the said Regulation is revoked and the following substituted therefor:
 - (11) The holder of a licence that authorizes the holder to hunt racoon at night shall not carry or use a firearm other than a .22-calibre rim-fire rifle chambered for cartridges known as .22 short, .22 long or .22 long rifle when hunting racoon. O. Reg. 524/86, s. 1 (2).
2. Clause 11 (a) of the said Regulation is amended by striking out "low-powered" in the second and third lines and inserting in lieu thereof "rim-fire".

(9334)

38

GAME AND FISH ACT

O. Reg. 525/86.

Hunting Licences.

Made—August 28th, 1986.

Filed—September 2nd, 1986.

REGULATION TO AMEND REGULATION 420 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE GAME AND FISH ACT

1. Subsection 6 (5), exclusive of the clauses, of Regulation 420 of Revised Regulations of Ontario, 1980, as

remade by subsection 1 (2) of Ontario Regulation 127/83, is revoked and the following substituted therefor:

(5) Every applicant for an examination shall produce with the application,

2. This Regulation comes into force on the 1st day of January, 1987.

(9335)

38

GAME AND FISH ACT

O. Reg. 526/86.

Fishing Licences.

Made—August 28th, 1986.

Filed—September 2nd, 1986.

REGULATION MADE UNDER THE GAME AND FISH ACT

FISHING LICENCES

1. In this Regulation,

“lake trout” includes common lake trout, Great Lakes trout, grey trout, Makinaw trout, siscowet and splake;

“muskellunge” includes the hybrid of the muskellunge and the northern pike;

“splake” means a cross breed of brook trout and lake trout;

“sport fishing” means the taking of fish for non-commercial purposes by angling or by means of hook and line, spear, dip net, bait fish trap, seine net or bow and arrow. O. Reg. 526/86, s. 1.

PART I

RESIDENT FISHING LICENCES

2.—(1) A licence issued under subsection 12 (1) of the Ontario Fishery Regulations to take fish by means of sport fishing shall be in Form 1.

(2) There is no fee for a licence in Form 1.

(3) A licence in Form 1 is not valid for sport fishing unless a tag in Form 2 or 3 is affixed to the reverse side thereof.

(4) The fee for a tag,

(a) in Form 2 is \$4.50 and the issuing fee is 50 cents;

(b) in Form 3 is \$9.50 and the issuing fee is 50 cents. O. Reg. 526/86, s. 2.

3.—(1) A licence issued under paragraph 29 (1) (b) of the Ontario Fishery Regulations to take bait fish for commercial use by means of a bait fish trap, dip net or seine net shall be in Form 4.

(2) The fee for a licence in Form 4 to take bait fish by means of,

(a) a dip net, is \$6; and

(b) bait fish traps, is \$2.50 for each bait fish trap authorized by the licence.

(3) The fee for a licence in Form 4 to take bait fish by means of a seine net whose dimensions are,

(a) not more than twenty metres by two metres, is \$12;

(b) more than twenty metres by two metres but not more than thirty-one metres by two and one-half metres, is \$18; and

(c) more than thirty-one metres by two and one-half metres but not more than forty-six metres by two and one-half metres, is \$24. O. Reg. 526/86, s. 3.

4.—(1) A licence issued under paragraph 29 (1) (b) of the Ontario Fishing Regulations to take fish for commercial use by means of a gill net, pound net, trap net, trawl net, hoop net, seine net, dip net or trammel net, or by means of hooks, shall be in Form 5.

(2) The fee for a licence in Form 5 to take fish by means of a gill net,

(a) in Lake Superior, Lake Huron, including Georgian Bay and North Channel, Lake Erie, except that part described in clause (b), and Lake Ontario, except the Bay of Quinte, is the greater of,

(i) \$24, or

(ii) \$4 for every 1,000 metres of gill net authorized by the licence;

(b) in that part of Lake Erie east of a line drawn south 21° 31' east astronomically or approximately south 16° 30' east magnetically from a point where the high water mark on the north shore of Lake Erie is intersected by the boundary between the counties of Elgin and Kent, authorizing the estimated taking of,

(i) not more than fourteen tonnes of fish, is \$60, and

(ii) more than fourteen tonnes of fish, is \$150;

(c) in Bay of Quinte of Lake Ontario is \$30;

(d) in Lake Nipigon, authorizing the use of,

(i) 5,500 metres of gill net, is \$36,

(ii) 11,000 metres of gill net, is \$72, and

(iii) 22,000 metres of gill net, is \$144; and

(e) in any other waters, authorizing the use of,

(i) 1,850 metres of gill net, is \$24, and

(ii) 3,675 metres of gill net, is \$48.

(3) The fee for a licence in Form 5 to take fish by means of pound nets,

(a) in Lake St. Clair, is \$8.50; and

(b) in other waters, is \$12,

for each net authorized by the licence.

(4) The fee for a licence in Form 5 to take fish by means of,

(a) trap nets, is \$12 for each trap net authorized by the licence;

(b) a trawl net, is \$120;

(c) hoop nets, is \$3.75 for each hoop net authorized by the licence.

(5) The fee for a licence in Form 5 to take fish by means of hooks,

(a) in the Ottawa River, is \$30; and

(b) in Lake St. Clair, is \$30 for every 300 hooks authorized by the licence.

(6) The fee for a licence in Form 5 to take fish, other than sturgeon or trout of any species, in waters other than the Ottawa River and Lake St. Clair, is \$6 for every 150 hooks authorized by the licence.

(7) The fee for a licence in Form 5 to take fish other than bait fish by means of a seine net,

(a) in Long Point Bay of Lake Erie, is \$60;

(b) in Lake St. Clair and the Detroit River and their tributaries lying within the counties of Essex and Kent, is \$12 for every 100 metres of seine net authorized by the licence; and

(c) in other waters, is \$24 for every 100 metres of seine net authorized by the licence.

(8) The fee for a licence in Form 5 to take fish by means of a trammel net is \$24 for every 100 metres authorized by the licence. O. Reg. 526/86, s. 4.

5. The fee for a licence in Form 6 issued under paragraph 29 (1) (g) of the Ontario Fishery Regulations is \$12. O. Reg. 526/86, s. 5.

6. The fee for a licence in Form 7 issued under paragraph 29 (1) (h) of the Ontario Fishery Regulations is \$6.25. O. Reg. 526/86, s. 6.

7.—(1) The holder of a licence in Form 5 shall,

(a) make,

(i) a monthly return, in Form 8 where no fishing has been done under the licence during the month and in Form 9 in all other cases, and

(ii) a return in Form 10 for every sale of fish, except a sale to the owner or manager of a fish plant registered under the *Fish Inspection Act* (Canada),

and forward the returns to the district manager or an officer designated by the district manager on or before the 8th day of the month following that for which the returns are made; and

(b) make an annual return in Form 11 and forward the return to the district manager not later than the 31st day of January next following the expiry of the licence.

(2) The holder of a licence in,

(a) Form 4 that authorizes the taking of bait fish for commercial use;

(b) Form 6; or

(c) Form 7,

shall make an annual return in Form 12 and forward the return to the issuer of the licence not later than the 15th day of January next following the date of expiry of the licence. O. Reg. 526/86, s. 7.

8. A licence to take fish for personal use by means of a dip net shall be in Form 25 and the fee is \$2.50. O. Reg. 526/86, s. 8.

9. A licence in Form 4, 5, 6 or 7 may be transferred upon application therefor in a form provided by the Ministry. O. Reg. 526/86, s. 9.

PART II

NON-RESIDENT FISHING LICENCE

10. In this Part,

"Canadian resident" means a person who has resided in any part of Canada other than Ontario for a period of at least seven consecutive months during

the twelve months immediately preceding the time that the person's residence becomes material under this Regulation. O. Reg. 526/86, s. 10.

11.—(1) A licence issued under subsection 26 (1) of the Ontario Fishery Regulations to a non-resident or Canadian resident who is not a member of an organized camp shall be in Form 13.

(2) There is no fee for a licence in Form 13.

(3) A licence in Form 13 is not valid for angling unless a tag in Form 14, 15, 16, 17, 18 or 19 is affixed to the reverse side thereof.

(4) A licence in Form 13 is not valid for angling lake trout or muskellunge unless a tag in Form 20 or 21 is attached to the reverse side thereof.

(5) A tag in Form 14, 15, 16, 17, 18 or 19 affixed to the reverse side of a licence in Form 13 authorizes the holder of that licence to angle for fish, except lake trout and muskellunge, during the period specified on the tag.

(6) A tag in Form 14, 15, 16, 17, 18 or 22 shall only be issued to non-residents.

(7) A tag in Form 19 shall only be issued to Canadian residents.

(8) A tag in Form 20 or 21 may be issued to a non-resident or a Canadian resident. O. Reg. 526/86, s. 11.

12. The fee for a tag,

(a) in Form 14 is \$10.25 and the issuing fee is \$0.75;

(b) in Form 15 is \$20.50 and the issuing fee is \$1.50;

(c) in Form 16 is \$31.50 and the issuing fee is \$1.50;

(d) in Form 17 is \$21 and the issuing fee is \$1;

(e) in Form 18 is \$21 and the issuing fee is \$1;

(f) in Form 19 is \$9.25 and the issuing fee is \$0.75;

(g) in Form 20 is \$5 and the issuing fee is \$0.50;

(h) in Form 21 is \$5 and the issuing fee is \$0.50;

(i) in Form 22 is \$2.75 and the issuing fee is \$0.25. O. Reg. 526/86, s. 12.

13. Where two persons are spouses of each other a tag in Form 17 shall be issued to one spouse and a tag in Form 18 shall be issued to the other spouse and

these tags shall authorize the holders thereof to angle for fish, except muskellunge and lake trout, during the period specified on the tags. O. Reg. 526/86, s. 13.

14.—(1) In this section,

"houseboat" means a vessel fitted as a temporary or permanent dwelling;

"tourist establishment" means an establishment consisting of any one of or a combination of,

(a) a cabin establishment,

(b) a camping establishment,

(c) a cottage establishment,

(d) a hotel,

(e) a motel,

(f) a motor hotel,

(g) an outpost establishment,

(h) a resort, or

(i) a tourist outfitter establishment,

as defined in Regulation 936 of Revised Regulations of Ontario, 1980, and includes a houseboat that is used for commercial purposes and is registered in Ontario under the *Canada Shipping Act*.

(2) A licence in Form 13 is not valid for angling in the part of Ontario described in the Schedule unless the holder of the licence has on his or her person a tag in Form 22 with the date of angling inserted on it by a licence issuer.

(3) Subsection (2) does not apply to the holder of a licence in Form 13 who, at the time of angling,

(a) has on his or her person a valid Crown land camping permit issued by the Ministry of Natural Resources;

(b) is authorized to camp on Crown land under clause 2 (1) (b) of Ontario Regulation 208/84 and has the rental agreement on his or her person;

(c) has a contract for accommodation with the operator of a tourist establishment;

(d) has a contract with an air carrier licensed by the Canadian Transport Commission and Transport Canada for air transportation to and from an angling site within the part of Ontario described in the Schedule;

(e) is the owner or the grandparent, parent, spouse, child, brother, sister or grandchild of

the owner of real property located in or adjoining the part of Ontario described in the Schedule; or

- (f) has on his or her person a valid campsite and vehicle permit or interior camping permit issued under Regulation 822 of Revised Regulations of Ontario, 1980.

(4) The holder of a licence in Form 13 to whom clause (3) (c), (d) or (e) applies shall, on the request of an officer, state to the officer,

- (a) the location and duration of the accommodation;
- (b) the name of the person with whom the holder has a contract for air transportation; or
- (c) the location of the real property,

as the case may be.

(5) A tag in Form 22 is valid only for the day indicated on it. O. Reg. 526/86, s. 14.

15.—(1) A licence issued under paragraph 26 (1) (a) of the Ontario Fishery Regulations to a non-resident who is a member of an organized camp shall be in Form 23.

(2) Each member of an organized camp shall pay a fee of \$2.20 for a licence in Form 23.

(3) A licence in Form 23 shall not be issued unless at least five members of the organized camp apply for the licence.

(4) A licence in Form 23 is valid during the period specified therein. O. Reg. 526/86, s. 15.

16.—(1) A licence issued under paragraph 29 (1) (j) of the Ontario Fishery Regulations to a non-resident shall be in Form 24 and the fee is \$5.25 and the issuing fee is \$1.

(2) A licence in Form 24 is valid only during the months of March, April, May, June and July. O. Reg. 526/86, s. 16.

PART III

GENERAL

17. The licences prescribed in this Regulation, except a licence in Form 23 or 24, expire with the 31st day of December next following the date of issue, or the date specified on the tag attached thereto, whichever comes first. O. Reg. 526/86, s. 17.

18. The fee for the replacement of any sport fishing licence is \$5.50. O. Reg. 526/86, s. 18.

19. No licence prescribed in this Regulation is valid unless signed by the issuer. O. Reg. 526/86, s. 19.

Schedule

In the territorial districts of Kenora and Rainy River described as follows:

All the waters of Rainy Lake, Rainy River, Lake of the Woods, Shoal Lake, Cul de Sac Lake and Obabikong Lake, and the Seine River system, including Little Grassy Lake, Grassy Lake, Shoal Lake, Wild Potato Lake and Partridge Crop Lake, lying downstream of Crilly Dam situated immediately north of the King's Highway known as Number 11. O. Reg. 526/86, Sched.

Form 1

Ministry of
Natural Resources
Ontario

Game and Fish Act

ONTARIO RESIDENT
SPORT FISHING LICENCE 19..

Ontario Resident

Tag and
Issuing Fee

Under the Game and Fish Act and the regulations,
and subject to the limitations thereof, and the
limitations of the Fisheries Act (Canada) and
of the Ontario Fishery Regulations, this licence
is granted to

☐ Seasonal

\$

☐ Four Day

\$

Last Name (Print)

Mr. /
M.
Mrs.

--

First Name (Print)

Initial

--

--

Street Address, Apr. No. P.O. Box or Rural Route

--

City, Town or Village

--

Prov.

--

Postal Code

--	--

This licence is not valid unless appropriate
Tag is affixed to reverse side and signed by
Licence Issuer

Identification

Date of Birth		
Day	Month	Year
Height	Colour of Hair	

Issuer Number

--

Signature of Licensee

Date of Issue

Signature of Issuer

--

--

--

O. Reg. 526/86, Form 1.

Ministry of
Natural
Resources
Ontario

Form 2
Game and Fish Act

ONTARIO RESIDENT FOUR DAY
SPORT FISHING TAG 19..

Valid for 4 consecutive days from

Fee
\$

Day	Month	Year

to

Day	Month	Year

O. Reg. 526/86, Form 2.

Ministry of
Natural
Resources
Ontario

Form 3
Game and Fish Act

ONTARIO RESIDENT SEASONAL SPORT
FISHING TAG 19..

Expires with the 31st day of December 19__

Fee
\$

O. Reg. 526/86, Form 3.

Form 4

Game and Fish Act



Ontario

Ministry of
Natural
Resources

Ministère des
Richesses
naturelles

Commercial Bait Fish Licence
Permis de prise commerciale de poisson d'appât

Loi sur la chasse et la pêche

Licence No. Permis n°
Licence fee Droits de permis \$

Under the Game and Fish Act, and the regulations, and subject to the limitations thereof and the limitations of the Fisheries Act and of the Ontario Fishery Regulations, this licence is granted to
Selon la Loi sur la chasse et la pêche et les règlements y afférents et selon les restrictions de la Loi sur les pêcheries du Canada et des règlements de pêche de l'Ontario, le présent permis est délivré à

Name
Nom

Address
Adresse

to take
pour la prise de

for commercial use by means of not more than
pour usage commercial à l'aide d'au plus

in the public waters of
dans les eaux publiques

This licence expires with the 31st of December, 19
Ce permis expire le 31 décembre 19

This licence is issued subject to further licences being granted for the public waters mentioned hereon.
Ce permis est délivré sous réserve de la délivrance d'autres permis pour les eaux publiques mentionnées aux présentes.

Date of Issue
Date d'émission

Place of Issue
Lieu d'émission

Not valid unless signed by Issuer
invalide sans la signature du délivreur

Signature of Issuer
Signature du délivreur

Serial No.
N° de série

- Distribution: Pt. 1 Licensee
Distribution: Partie 1 Détenteur du permis
Pt. 2 District Office
Partie 2 Bureau de district
Pt. 3 Licence Issuing Section, Financial Services Branch
Partie 3 Section de délivrance des permis, Direction des services financiers
Pt. 4 Fisheries Branch
Partie 4 Direction des pêches
Pt. 5 Conservation Officer
Partie 5 Agent de protection de la nature

Form 5

Game and Fish Act



Ministry of
Natural
Resources

Ministère des
Richesses
naturelles

Commercial Fishing Licence
Permis de pêche commerciale

Loi sur la chasse et la pêche

Licence No. Permis n°
Licence Fee Droits de permis \$

Under the Game and Fish Act, and the regulations, and subject to the limitations thereof and the limitations of the Fisheries Act and of the Ontario Fishery Regulations, this licence is granted to
Selon la Loi sur la chasse et la pêche et les règlements y afférents et selon les restrictions de la Loi sur les pêcheries du Canada et des règlements de pêche de l'Ontario, ce permis est délivré à

Names Nom(s)

Mailing Address Adresse postale
Postal Code Code postal

To take and sell: the specified species of fish in the quantities specified herein subject to the conditions attached and marked Appendix "A", "B" and "C" which all form part of this licence, and in the waters as described below:
pour la prise et la vente des espèces et des quantités de poisson indiquées aux présentes, sous réserve des conditions stipulées aux Annexes "A", "B" et "C" de ce permis et dans les eaux décrites ci-dessous:

--

This licence is issued subject to further licences being granted for the waters mentioned hereon. This licence is issued subject to annual amendment in respect to quota or other management requirements.
Ce permis est délivré sous réserve de la délivrance d'autres permis pour les eaux susmentionnées et de sa modification annuelle en matière de contingents ou autres exigences de gestion.

Signature of Licensee(s) <i>Signature du ou des détenteurs</i>

Date of Issue <i>Date d'émission</i>	Expiry Date <i>Date d'expiration</i>	Place of Issue <i>Lieu d'émission</i>
Not valid unless signed by Licence Issuer and Licensee(s). <i>Invalide sans la signature du délivreur et celle du ou des détenteurs du permis.</i>		Signature of Licence Issuer <i>Signature du délivreur</i>

Serial No. <i>N° de série</i>

Distribution: Pt. 1 Licensee(s)
Distributeur: Partie 1 Détenteur(s) du permis
Pt. 2 District Office
Partie 2 Bureau de district
Pt. 3 Conservation Officer
Partie 3 Agent de protection de la nature

Ministry of
Natural
ResourcesMinistère des
Richesses
naturelles

Commercial Fishing Licence
Permis de pêche commerciale

Appendix A
Annexe A

The person(s) holding licence no. _____ is/are authorized to take and transport commercial fish by means of the vessels as described below:
 Le ou les détenteurs du permis n° _____ sont autorisés à prendre et à transporter du poisson commercial à l'aide du matériel décrit ci-dessous:

Identification
Identification

I, we,
Je, nous.

The person(s) holding licence no. _____ designate the person(s) named hereunder to conduct on my/our behalf in my/our absence commercial fishing under the
 Le ou les détenteurs du permis n° _____, dont le nom est indiqué ci-dessous, sont autorisés en mon ou en notre absence, à faire de la pêche commerciale en vertu

authority of licence no. _____
du permis n° _____

[illegible]

Not valid unless signed by Licence Issuer and Licensee(s).
Invalide sans la signature du délivreur et du ou des détenteurs.

Signature of Licensees(s) Signature(s) du ou des détenteurs	Signature of Licence Issuer Signature du délivreur	Date of Issue Date d'émission
--	---	----------------------------------

To be typed by issuer as required.
Réserve au délivreur (dactylographier)

Distribution:	Pt. 1	Licensee(s)
Distribution:	Partie 1	Détenteur(s) du permis
	Pt. 2	District Office
	Partie 2	Bureau de district
	Pt. 3	Conservation Officer
	Partie 3	Agent de protection de la nature

Serial No.
N° de série



Ministry of
Natural
Resources

Ontario

Ministère des
Richesses
naturelles

Commercial Fishing Licence Conditions
Conditions d'octroi d'un permis de pêche commerciale

Appendix B
Annexe B

The person(s) holding Commercial Fishing Licence No. _____ may take the specified species of fish mentioned in Column 1 of
Le ou les détenteurs du permis de pêche commerciale n° _____ sont autorisés à prendre les espèces et les quantités de poisson
Appendix C in the specified quantities mentioned in Column 2 of Appendix C, subject to the following conditions:
indiquées respectivement dans les colonnes 1 et 2 de l'Annexe C, sous réserve des conditions suivantes:

I have read and understand the conditions of this licence. J'ai lu et je comprends les conditions d'octroi de ce permis.	Signature of Licensee(s) Signature(s) du ou des détenteurs
Date of Issue Date d'émission	Place of Issue Lieu d'émission
Not valid unless signed by Licence Issuer and Licensee(s). Invalide sans la signature du délivreur et du ou des détenteurs du permis.	Signature of Licence Issuer Signature du délivreur

To be typed by the issuer as required.
Réservé au délivreur (dictylographier)

Serial No.
N° de série

Distribution: Pt. 1 Licensee(s)
Distribution: Partie 1 Détenteur(s) du permis
Pt. 2 District Office
Partie 2 Bureau de district
Pt. 3 Conservation Officer
Partie 3 Agent de protection de la nature



Ministry of
Natural
Resources

Ministère des
Richesses
naturelles

Commercial Fishing Licence Quotas
Contingentements du permis de pêche commerciale

Appendix C
Annexe C

Licence No.
Permis n°

Legend: (No.) - Amount of Quota
Légende: - Importance des contingentements
Unl. - Unlimited Quotas
- Contingentements illimités
X - No Harvest Permitted
- Pas de récolte permise

Fish Species Espèces de poissons	Quantities of the named fish species in kilogram in round weight for which this licence is valid in Fishing Area No. (specify) Poids arrondi en kilogrammes des espèces de poissons dont la prise est autorisée par ce permis dans la région de pêche n° (préciser)

Signature of Licensee(s)
Signature(s) du ou des détenteurs

Place of Issue
Lieu d'émission

Serial No.
N° de série

Date of Issue
Date d'émission

Signature of Licence Issuer
Signature du délivreur

Distribution: Pt. 1 - Licensee(s), Pt. 2 - District Office, Pt. 3 - Conservation Officer
Distribution: Partie 1 - Détenteur(s) du permis, Partie 2 - Bureau de district, Partie 3 - Agent de protection de la nature

Not valid unless signed by Licence Issuer and Licensee(s)
Invalide sans la signature du délivreur et du ou des détenteurs

Form 6

Game and Fish Act



Ministry of
Natural
Resources

Bait-Fish
Dealer's
Licence

19____

Licence fee \$

Under The Game and Fish Act, and the regulations, and subject to the limitations thereof and the limitations of the Ontario Fishery Regulations, this licence is granted to

Name _____

Address _____
OF _____

to deal in bait-fish at _____

This licence expires with the 31st of December, 19____	This licence cannot be either assigned or transferred.
--	--

Date of Issue _____	Place of Issue _____
---------------------	----------------------

Not valid unless signed by Issuer _____	Signature of Issuer _____
---	---------------------------

0072

O. Reg. 526/86, Form 6.

Form 7

Game and Fish Act



Ministry of
Natural
Resources

Licence to
Preserve
Bait-Fish

19____

Licence fee \$

Under The Game and Fish Act, and the regulations, and subject to the limitations thereof and the limitations of the Ontario Fishery Regulations, this licence is granted to

Name _____

Address _____
OF _____

to preserve bait-fish at _____

This licence expires with the 31st of December, 19____	This licence cannot be either assigned or transferred.
--	--

Date of Issue _____	Place of Issue _____
---------------------	----------------------

Not valid unless signed by Issuer _____	Signature of Issuer _____
---	---------------------------

0074

O. Reg. 526/86, Form 7.

Form 8

Game and Fish Act



Ministry of
Natural
Resources

Report of Nil
Commercial Fishing
Game and Fish Act

(Complete separate form for each licence)

Name of Licensee		Licence No.
Mailing Address		
		Postal Code
Lake	Port	

My commercial fish harvest for the period of

Day	Month	Year	to	Day	Month	Year
-----	-------	------	----	-----	-------	------

is nil.

Important:

- 1. Commercial Fishing Licence holders operating on waters except Lake Erie must submit this return by the 8th day of the month following any month in which no fishing was done.
- 2. Lake Erie licensees must submit this return by the Monday following any week in which no fishing was done.

This return is a true, complete and correct statement of fishing operations carried on by me during the period specified herein.

Signature of the holder of the licence for which this return is made	Date		
	Day	Month	Year

Note: A nil report is not required for a commercial fishing licence for those months during which that licence is not valid.

Stamp Here
Sealing This
Report

Ministry of Natural Resources

Ontario

Fold here last.

Fold here first.

O. Reg. 526/86, Form 8.

[illegible]

Notes

- Use the columns for pound nets, trap, hoop nets, seine, barbed hooks, trawling lines and dip nets, to show type of gear and lifts
- For hoop nets, show the number of pots lifted, to overcome the difficulty arising from single and double lifts
- For seines, show length in yards and number of mesh made for each day, as for example 100 2, to indicate one hundred yard seine hauled twice
- For barbed hooks, show the number of hooks lifted for each day that fish were landed
- Use the three columns below for trawling operations, to show the number of hauls made each day, the depth in fathoms, and cod and mesh size
- Use the three columns below for gill net operations, to show the amount of net lifted

Additional observations or comments may be made below.

O. Reg. 526/86, Form 9.

[illegible]

This return contains a complete and accurate account of sales to fish Buyers carried on by me during the month of

Signature of Person Holding Licence	Licence No.	Date
-------------------------------------	-------------	------

Form 10

Game and Fish Act



Ministry of
Natural
Resources
Ontario

Official Receipt and
Export Permit

No.

Fish caught under the authority of licence no. _____

Code to be used		Indicate measure used	
F - filleted	H - headless dressed	<input type="checkbox"/> Pounds	
D - dressed	L - live	<input type="checkbox"/> kilograms	
R - round			

☐ Fish sold to or ☐ Exported to (check one)

Name	Date month day 19
Address	

Species	Weight	Form (use Code above)	Price	Amount	
Yellow pickerel					
Lake whitefish					
Northern pike					
Yellow perch					
Lake Trout					
Other(s) - list					
Total					

I certify that the above information is true and complete.

Signature of Licensee or Vendor	Signature of Receiver

Form 11

Game and Fish Act



Ministry of
Natural
Resources
Ontario

Annual Commercial
Fishing Report

**Do not include in this report any information shown on an Annual
Commercial Fishing Report for another licence this year**

To _____ Conservation Officer For the year ending December 31, 198 _____

Commercial Fishing Licence Number _____ Name of Licensee _____ Home Port or Address _____				Number of fishermen engaged in fishery. (Where owner assists he should be included but, do not show men already included under another licence)		
NEW CAPITAL INVESTMENT Purchases during the year of new equipment not "Used" equipment				FISH CAUGHT DURING THE YEAR		
KIND		TOTAL COST \$		KIND	QUANTITY LBS.	PRICE PER POUND
Diesel and Gas Engines, Outboard Motors		00		1 Blue Pickerel		
Tugs, Boats, Canoes, etc.		00		2 Bullheads		
Gear: Nets, Twine, Ropes, Floats, Winches, etc.		00		3 Carp		
Wheelhouse Equipment: Radios, Radar, etc.		00		4 Catfish		
Check if no new equipment purchased during year <input type="checkbox"/>				5 Chubs & Tullibee		
				6 Eels		
				7 Lake Herring		
				8 Trout		
				9 Ling		
				10 Northern Pike		
				11 Perch		
				12 Menominee		
				13 Suckers or Mulletts		
				14 Rock Bass & Crappies		
				15 Saugers		
				16 Sheephead		
				17 Smelt		
				18 Sturgeon		
				19 Cavier		
				20 Sunfish		
				21 White Bass		
				22 Whitefish		
				23 Yellow Pickerel		
FISHING CRAFT OR BOATS (Including Motor)				LOCALITY _____ <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> DEPARTMENT USE ONLY </div>		
DEPARTMENT OF TRANSPORT No. _____						
LENGTH	NUMBER OF BOATS	TONNAGE (TONS)	VALUE \$			
40 Feet and over			00			
20 Feet to 39 Feet			00			
Under 20 Feet			00			
FISHING GEAR REPORT ALL GEAR ON HAND				This Return contains a complete and correct statement of fishing operations carried on by me during the year.		
KIND	NUMBER	LENGTH (YARDS)	VALUE \$			
1 Gill Net			00			
2 Pounds Net			00			
3 Trap Net			00			
4 Hoop Net (No. of Pots)			00			
5 Seines			00			
6 Night Lines (No. of Hooks)			00			
7 Trolling Lines			00			
8 Dip Net			00			
9 Trawls			00			
SHORE INSTALLATIONS				Date _____ 19 _____ Signature of Licensee _____		
KIND	NUMBER	VALUE \$				
Freezers and Ice Houses		00				
Piers and Wharves		00				
Net Sheds		00				

An Annual Commercial Fishing Report is to be made by each holder of a commercial fishing licence within 30 days of the end of the year reported as required under The Game and Fish Act. You are required to submit this report whether or not you fished during the year and making sure the left hand portion of this report is completed

68/6/811

Annual Return by Commercial Bait Fish Licensees

1. Report on all your bait-fish licences within a single District
2. Indicate whether units of measure are dozens, gallons or pounds.
3. Do not duplicate Capital Equipment on any other bait-fish report.
4. Use reverse side of form for any comments.
5. Submit return before January 15th next, to your Conservation Office.

Year
19

Name		Address		Location (or Township) of Public Waters Fished												Bait Fish Dealers Lic. No.	
Monthly Record of Harvest and Disposition of Bait Fish Species Caught by Fishermen in Public Waters																	
Species	Unit of Measure	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Men Engaged	No.	No. of Traps	
Emerald Shiners														Full time			
Golden Shiners														Part time			
Suckers																	
Chubs																	
Dace																	
Fatheads																	
Other (Specify)																	
Other (Specify)																	
Total Catch																	
Species Propagated																	
														Annual Total Propagated			
Annual Total																	
Disposition																	
Quantity Preserved														Annual Value			
Quantity Bought																	
Sold to Anglers														Annual Value			
Sold to Dealers																	
Annual Total																	
Capital Equipment																	
Holding and Transport Equipment				Fishing Gear and Equipment													
Ponds	Tanks	Live Boxes	Mobile Tanks	Aeration Equipment	Trucks	Aircraft	Boats	Dip-Nets	Series	Traps	Pumps						
Number																	
Type or Construction																	
Value																	

I certify the above return is complete, and correct.

Signature _____

Check here if reverse of form used for comments

Date _____

☐ Check here if reverse of form used for comments

O. Reg. 526/86, Form 12.

Game and Fish Act

(Not required by a resident of Ontario.)
Under the Game and Fish Act and the regulations,
and subject to the limitations thereof, and the
limitations of the Fisheries Act and of the Ontario
Fishery Regulations, this licence is granted to

Mr. /
M.
Mrs.

--

Initial

Postal Code[illegible]

Non-Resident	Tag and Issuing Fee
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
10	10
11	11
12	12
13	13
14	14
15	15
16	16
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86	86
87	87
88	88
89	89
90	90
91	91
92	92
93	93
94	94
95	95
96	96
97	97
98	98
99	99
100	100

- | | |
|--|----|
| <input type="checkbox"/> Four Day | \$ |
| <input type="checkbox"/> Twenty one day | \$ |
| <input type="checkbox"/> Seasonal | \$ |
| <input type="checkbox"/> Muskellunge | \$ |
| <input type="checkbox"/> Lake Trout | \$ |
| <input type="checkbox"/> Spousal
(per Spouse) | \$ |

Canadian Resident

- | | |
|--------------------------------------|----|
| <input type="checkbox"/> Seasonal | \$ |
| <input type="checkbox"/> Muskellunge | \$ |
| <input type="checkbox"/> Lake Trout | \$ |

Date of Birth

Day	Month	Year
1	1	1

Height	Colour of Hair
--------	----------------

Issuer Number

Signature of Licensee	Date of Issue	Signature of Issuer
-----------------------	---------------	---------------------

Ministry of
Natural
Resources

Form 14

Game and Fish Act

NON-RESIDENT FOUR DAY ANGLING TAG

19..

Valid for 4 consecutive days from

Fee \$

Day	Month	Year

to

Day	Month	Year

O. Reg. 526/86, Form 14.

Ministry of
Natural
Resources

Form 15

Game and Fish Act

NON-RESIDENT TWENTY-ONE DAY
ANGLING TAG

19..

Valid for 21 consecutive days from

Fee \$

Day	Month	Year

to

Day	Month	Year

O. Reg. 526/86, Form 15.

Ministry of
Natural
Resources
Ontario

Form 16

Game and Fish Act

NON-RESIDENT SEASONAL ANGLING TAG

19..

Expires with the 31st day of December 19__

Fee
\$

O. Reg. 526/86, Form 16.

Ministry of
Natural
Resources
Ontario

Form 17

Game and Fish Act

NON-RESIDENT SPOUSAL ANGLING TAG A 19..

Expires with the 31st day of December 19__

Fee
\$

O. Reg. 526/86, Form 17.

Ministry of
Natural
Resources
Ontario

Form 18

Game and Fish Act

NON-RESIDENT SPOUSAL ANGLING TAG B 19..

Expires with the 31st day of December 19__

Fee
\$

O. Reg. 526/86, Form 18.

Ministry of
Natural
Resources
Ontario

Form 19

Game and Fish Act

CANADIAN RESIDENT ANGLING TAG (SEASONAL) 19..

Expires with the 31st day of December 19__

Fee
\$

O. Reg. 526/86, Form 19.

Ministry of
Natural
Resources
Ontario

Form 20

*Game and Fish Act*NON-RESIDENT/CANADIAN RESIDENT LAKE TROUT
TAG 19..

This tag is valid only in conjunction with and
for time period indicated on valid Time Validation
Tag.

Fee
\$

O. Reg. 526/86, Form 20.

Ministry of
Natural
Resources
Ontario

Form 21

Game and Fish Act

NON-RESIDENT/CANADIAN RESIDENT MUSKELLUNGE
TAG 19..

This tag is valid only in conjunction with and for time
period indicated on valid Time Validation Tag.

Fee
\$

O. Reg. 526/86, Form 21.

Ministry of
Natural
Resources
Ontario

Form 22

Game and Fish Act

BORDER WATER ANGLING VALIDATION TAG

Fee \$2.75

Issuer's Fee \$.25

Total Fee \$3.00

This tag **is** valid for the day shown below.

Note: This tag is required by anglers who are non-residents of
Canada, in the area described in the Schedule to Ontario
Regulation 15/85, in addition to any other tags or
requirements prescribed by the regulations made under
the Game and Fish Act.

O. Reg. 526/86, Form 22.

Form 23

Game and Fish Act



Ministry of
Natural
Resources

Ministère des
Richesses
naturelles

Non-Resident
Angling Licence
for a Member of an
Organized Camp
198

Permis de pêche
à la ligne pour
camp organisé de
non-résidents
198

No. A^o

Under the Game and Fish Act and the regulations, and subject to the limitations thereof, and the limitations of the Ontario Fishery Regulations, this licence is granted to
Selon la Loi sur la chasse et la pêche et les règlements y afférents et selon leurs restrictions et les restrictions des règlements de pêche de l'Ontario, ce permis est décerné à

Last Name (Print) / Nom de famille (en lettres moulées)

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

First Name (Print) / Prénom (en lettres moulées)

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Street Address, Apt. No., P.O. Box or Rural Route / Numéro, rue, app., C.P. ou route rurale

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

City, Town or Village / Ville ou village

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

State / État

Zip Code / Code postal

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Who is a member of: / qui est membre de

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Location (Lake) / Situé à (lac)

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Signature of Issuer / Signature du délivreur

Date of Issue / Date d'émission

Signature of Licensee / Signature du détenteur du permis

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

1421 (86/87)

Licence Fee
Droits de permis

Identification / Identification

Date of Birth / Date de naissance		
Day / Jour	Month / Mois	Year / Année
Height / Taille		Weight / Poids
Colour of Hair / Cheveux		Colour of Eyes / Yeux

Valid for 21 consecutive days

Valable pendant 21 jours consécutifs

From / Du

Day / Jour	Month / Mois	Year / Année
		8 7

To / Au

Day / Jour	Month / Mois	Year / Année
		8 7

O. Reg. 526/86, Form 23.

Form 24

Game and Fish Act



Ministry of
Natural
Resources

Non-Resident Licensee to
Take Fish By Means other
than Angling
19

No

Under the Game and Fish Act and the regulations, and subject to the limitations thereof, and the limitations of the Ontario Fishery Regulations, this license is granted to

Last Name (Print)

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

First Name (Print)

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Street Address, Apt. No., P.O. Box or Rural Route

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

City, Town or Village

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Prov / State

Postal / Zip Code

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Licence Fee
Droits de permis \$
Issuing Fee
Droits d'émission \$
Total Fee \$

Identification / Identification

Date of Birth / Date de naissance		
Day	Month	Year
Height		Colour of Eyes

Issuer Number

--	--	--	--	--	--	--	--	--	--

Signature of Issuer

Date of Issue

Signature of Licensee

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1883

O. Reg. 526/86, Form 24.

Form 25

Game and Fish Act

Ministry of Natural Resources
Ontario

Dip-Net Licence to
Take Fish for
Personal Use
19

Under the Game and Fish Act and the regulations, and subject to the limitations thereof, and the limitations of the Fisheries Act (Canada) Ontario Fishery Regulations, this licence is granted to:

Mr/ Licence Fee \$2.50
M.
Mrs./

First Name (Print)

Initial

Street Address, Apt. No., P.O. Box or Rural Route

Identification

Date of Birth

Day

Month

Year

City, Town or Village

Height	Frequency
150	1
155	1
160	1
165	1
170	1
175	1
180	1
185	1
190	1
195	1
200	1
205	1
210	1
215	1
220	1
225	1
230	1
235	1
240	1
245	1
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835	1
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865	1
870	1
875	1
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890	1
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905	1
910	1
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925	1
930	1
935	1
940	1
945	1
950	1
955	1
960	1
965	1
970	1
975	1
980	1
985	1
990	1
995	1
1000	1

Weight

Colour of Hair	
----------------	--

Colour of Eyes

Prov.

Postal Code

Office

TO TAKE

IN THE WATERS OF:

pink salmon

herring

whitefish

For personal use by means of a dip-net the dimensions of which are not greater than 183 cm. by 183 cm. if angular, and 183 cm. in diameter, if circular.

This licence expires with December 31 of the year in which it is issued.

Date of issue

Place of issue

Signature of issuer

Serial No.

Distribution: Pt. 1 - Licensee

Pt. 2 - District Office

Pt. 3 - Conservation Officer

JCT 04 27

Daily Catch and Possession Limit for:

1. Pacific (pink) salmon is 5 in one day except for Loughborough Lake in the Townships of Kingston, Storrington and Loughborough in the County of Frontenac, where only 3 may be taken.
2. Whitefish is 25 in one day except for Division 5, (Lake Simcoe) where only 2 may be taken.
3. Yellow perch is 50 in division 17 and 28, and unlimited for the rest of Ontario. The possession limit in Divisions 17 and 28 is 100.

O. Reg. 526/86, Form 25.

20. Regulation 414 of Revised Regulations of Ontario, 1980 and Ontario Regulations 218/81, 647/81, 835/81, 629/82, 645/83, 41/84, 254/84, 764/84 and 15/85 are revoked.

21. This Regulation comes into force on the 1st day of January, 1987.

(9336)

38

ONTARIO UNCONDITIONAL GRANTS ACT

O. Reg. 527/86.

General.

Made—August 28th, 1986.

Filed—September 2nd, 1986.

REGULATION MADE UNDER THE ONTARIO UNCONDITIONAL GRANTS ACT

GENERAL

1.—(1) In this Regulation,

“average commercial mill rate” means in respect of a municipality the quotient obtained by dividing total commercial taxes by the sum of commercial local assessment and business local assessment, multiplied by 1,000, correct to two decimal places;

“business local assessment” means the aggregate of,

- (a) own purpose business local assessment shown under the subheading “general” in line 30 of column 3 of Schedule 13, and
- (b) own purpose business local assessment shown under the subheading “police villages at reduced rates” in line 31 of column 3 of Schedule 13;

“commercial local assessment” means the aggregate of,

- (a) own purpose commercial and industrial local assessment shown under the subheading “general” in line 30 of column 2 of Schedule 13, and
- (b) own purpose commercial and industrial local assessment shown under the subheading “police villages at reduced rates” in line 31 of column 2 of Schedule 13;

“discounted residential local assessment” means the product, correct to the nearest dollar, obtained by multiplying 0.55 by the aggregate of,

- (a) residential and farm local taxable assessment shown under the subheading “general” in line 30 of column 1 of Schedule 13,
- (b) residential and farm local taxable assessment shown under the subheading “police villages at reduced rates” in line 31 of column 1 of Schedule 13, and
- (c) residential and farm local taxable assessment shown under the subheading “farms at reduced rates” in line 32 of column 1 of Schedule 13;

“equalization factor” means the equalization factor for a municipality as set out in the Schedule to this Regulation;

“equivalent local assessment” means the quotient obtained by dividing the aggregate of telephone and telegraph taxation and lower tier payments in lieu and upper tier payments in lieu by the average commercial mill rate, multiplied by 1,000, correct to the nearest dollar;

“lower tier payments in lieu” means payments in lieu of taxes for own purposes shown in line 18 of column 4 of Schedule 13;

“lower tier share of upper tier prepaid special charges” means the prepaid special charges shown in column 13 opposite the name of the lower tier municipality in Schedule 14;

“1985 lower tier resource equalization grant share” means the lower tier share of the resource equalization grant entitlement in 1985 under section 8 of the Act;

“1985 lower tier share of upper tier support grants” means the amount shown in column 2 opposite the name of the lower tier municipality in Schedule 14;

“1985 support grants” means the total general and special support grant entitlements for the municipality in 1985 under sections 10, 11 and 12 of the Act;

“1985 upper tier resource equalization grant share” means the upper tier share of the resource equalization grant entitlement in 1985 under section 8 of the Act;

“own sewer revenue” means for a lower tier municipality, revenues from sewer surcharges on direct water billings in the lower tier municipality, as shown in line 4 of column 4 of Schedule 13, and includes those amounts billed in or to the lower tier municipality by another lower tier municipality or by an upper tier municipality in which the lower tier municipality is not located, as shown in lines 45 to 48 and line 65 of columns 2 and 3 of Schedule 12 for the municipality providing water to the lower tier municipality;

“own water revenue” means for a lower tier municipality, revenues from direct water billings in the lower tier municipality as shown in line 2 of column 4 of Schedule 13, and includes those amounts billed in or to the lower tier municipality by another lower tier municipality or by an upper tier municipality in which the lower tier municipality is not located, as shown in lines 40 to 43 and line 64 of columns 2 and 3 of Schedule 12 for the municipality providing water to the lower tier municipality;

“prepaid special charges” means the amount shown in line 24 of column 1 of Schedule 13;

"Schedule 12" means Schedule 12 of the 1985 financial information return made under section 3 of the *Municipal Affairs Act* and section 84 of the *Municipal Act*, of a municipality providing sewer or water service, or both, to ratepayers in the lower tier municipality;

"Schedule 13" means the audited Schedule 13 of the 1985 financial information return of a lower tier or upper tier municipality provided under section 3 of the *Municipal Affairs Act* and section 84 of the *Municipal Act*;

"Schedule 14" means the audited Schedule 14 of the 1985 financial information return of an upper tier municipality provided under section 3 of the *Municipal Affairs Act* and section 84 of the *Municipal Act*;

"telephone and telegraph taxation" means the aggregate of,

- (a) lower tier share of telephone and telegraph taxation shown in line 2 of column 12 of Schedule 13, and
- (b) upper tier share of telephone and telegraph taxation shown in line 6 of column 12 of Schedule 13;

"total commercial taxes" means the aggregate of,

- (a) own purpose commercial and industrial taxes shown in line 1 of column 7 of Schedule 13,
- (b) own purpose business taxes shown in line 1 of column 8 of Schedule 13, and
- (c) upper tier commercial taxes;

"total discounted local assessment" means the aggregate of,

- (a) discounted residential local assessment,
- (b) commercial local assessment,
- (c) business local assessment, and
- (d) equivalent local assessment;

"total equalized discounted assessment" means the quotient obtained by dividing the total discounted local assessment by the equalization factor, multiplied by 100, correct to the nearest dollar;

"total own taxation" means the total own purposes taxation as shown in line 4 of column 12 of Schedule 13;

"total upper tier requisition" means the amount shown in line 47 of column 8 of Schedule 14;

"total upper tier sewer billings" means for an upper tier municipality, the sum of the upper tier sewer

billings in all lower tier municipalities which received sewer services from the upper tier municipality;

"total upper tier taxation" means the amount shown in line 8 of column 12 of Schedule 13;

"total upper tier water billings" means for an upper tier municipality, the sum of upper tier water billings in all lower tier municipalities which received water services from the upper tier municipality;

"upper tier commercial taxes" means the aggregate of,

- (a) upper tier purpose commercial and industrial taxes shown in line 5 of column 7 of Schedule 13, and
- (b) upper tier purpose business taxes shown in line 5 of column 8 of Schedule 13;

"upper tier payments in lieu" means the upper tier share of payments in lieu of taxes shown in line 18 of column 2 of Schedule 13;

"upper tier sewer billings" means for an upper tier municipality, sewer service charges billed directly by the upper tier municipality to ratepayers in the lower tier municipality, shown in column 11 opposite the name of the lower tier municipality in Schedule 14;

"upper tier sewer revenue" means sewer surcharges on direct water billings to ratepayers in the lower tier municipality on behalf of the upper tier municipality, as shown in line 4 of column 2 of Schedule 13;

"upper tier water billings" means water service charges billed directly by the upper tier municipality to ratepayers in the lower tier municipality, shown in column 9 opposite the name of the lower tier municipality in Schedule 14;

"upper tier water revenue" means direct water billings to ratepayers in the lower tier municipality on behalf of the upper tier municipality, as shown in line 2 of column 2 of Schedule 13.

(2) In the case of lower tier municipalities, references to Schedule 14, unless otherwise specified, are references to Schedule 14 of the upper tier municipality within which the lower tier municipality is situated.

(3) The standard equalized assessment per household prescribed for the purpose of subsection 8 (1) of the Act is \$57,000.

(4) The northern part of Ontario is prescribed as the area lying north of the French River, Lake Nipissing and the southerly boundary of the geographic Township of West Ferris and the geographic townships of East Ferris, Bonfield, Calvin and

Papineau in the Territorial District of Nipissing and includes all municipalities in the Territorial District of Manitoulin. O. Reg. 527/86, s. 1.

GENERAL SUPPORT AND SPECIAL SUPPORT GRANTS

2. For the purposes of calculating a general support grant, special support grant or minimum grants entitlement for an upper tier municipality, "net general dollar levy" means the aggregate of,

- (a) the total upper tier requisition;
- (b) the total upper tier water billings;
- (c) the total upper tier sewer billings;
- (d) prepaid special charges;
- (e) the 1985 upper tier resource equalization grant share; and
- (f) the 1985 support grants. O. Reg. 527/86, s. 2.

3. For the purposes of calculating a general support grant, special support grant or minimum grants entitlement for a lower tier municipality, "net general dollar levy" means the aggregate of,

- (a) the total own taxation;
- (b) the own water revenue;
- (c) the own sewer revenue;
- (d) the lower tier payments in lieu;
- (e) prepaid special charges;
- (f) the 1985 lower tier resource equalization grant share; and
- (g) the 1985 support grants. O. Reg. 527/86, s. 3.

GRANT UNDER SECTION 2b OF THE ACT

4. The grant payable in 1986 to each upper tier municipality and lower tier municipality under section 2b of the Act is \$50 multiplied by the number of households. O. Reg. 527/86, s. 4.

RESOURCE EQUALIZATION GRANT

5.—(1) For the purposes of subsection 8 (1) of the Act, the equalized assessment per household in the preceding year shall be determined by dividing the total equalized discounted assessment of the municipality in 1985 by the number of households in the municipality in 1986, correct to the nearest dollar.

(2) For the purposes of calculating the resource equalization grant, "net general dollar levy" means the aggregate of,

- (a) the net general dollar levy support grants determined under section 3;
- (b) the total upper tier taxation;
- (c) the upper tier water revenue;
- (d) the upper tier sewer revenue;
- (e) the upper tier water billings;
- (f) the upper tier sewer billings;
- (g) the upper tier payments in lieu;
- (h) the 1985 upper tier resource equalization grant share;
- (i) the 1985 lower tier share of upper tier support grants; and
- (j) the lower tier share of upper tier prepaid special charges.

(3) The resource equalization grant payable under section 8 of the Act is the lesser of,

- (a) 25 per cent of the net general dollar levy; and
- (b) the net general dollar levy multiplied by,

$$\frac{0.6 \times (57,000 - A)}{(57,000)} \quad \text{correct to four decimal places}$$

where A is the equalized assessment per household in the preceding year determined under subsection (1), correct to the nearest dollar.

(4) Notwithstanding subsection (3), and subject to subsection (5), the maximum resource equalization grant payable under section 8 of the Act is the aggregate of,

- (a) the sum of the 1985 lower tier resource equalization grant share and the 1985 upper tier resource equalization grant share; and
- (b) the amount obtained by multiplying the households in the municipality by \$1.25, correct to the nearest dollar.

(5) Where the grant calculated under subsection (3) exceeds the grant calculated under subsection (4) by more than \$120 multiplied by the number of households, the maximum resource equalization grant payable under section 8 of the Act is the sum of,

- (a) the grant calculated under subsection (4); and
- (b) the amount in excess of the product of \$120 and the number of households, by which the grant calculated under subsection (3) exceeds the grant calculated under subsection (4).

(6) For the purposes of subsection 8 (2) of the Act, the proportion of the resource equalization grant payable to an upper tier municipality is the factor obtained by dividing the upper tier commercial taxes by the total commercial taxes correct to four decimal places. O. Reg. 527/86, s. 5.

REVENUE GUARANTEE

6.—(1) In this section,

“minimum grants entitlement” means the sum of the 1985 grants entitlement and the amount obtained by multiplying the net general dollar levy by .0025 except where a municipality is situate in the northern part of Ontario, in which case the “minimum grants entitlement” means the sum of the 1985 grants entitlement and the amount obtained by multiplying the net general dollar levy by .01;

“1985 grants entitlement” means the total of the grants payable to a municipality for 1985 under sections 2, 2a, 2b, 4, 8, 10, 11 and 12 of the Act;

“1986 grants entitlement” means the total of the grants payable to a municipality for 1986 under sections 2, 2a, 2b, 4, 8, 10, 11 and 12 of the Act.

(2) A revenue guarantee grant is payable for 1986 under section 8a of the Act to any upper tier municipality and to any lower tier municipality where the 1986 grants entitlement of the municipality is less than the minimum grants entitlement of the municipality.

(3) The amount of the revenue guarantee grant is the amount obtained by subtracting the 1986 grants entitlement of the municipality from the minimum grants entitlement of the municipality. O. Reg. 527/86, s. 6.

GENERAL

7.—(1) In the calculation of the grants under the Act for a municipality, where incorporation took place effective on or after the first day of the calendar year or where major boundary changes took place on or after the first day of the calendar year, the Minister may revise data pertaining to the immediately preceding year to take into account the incorporation or changes in boundaries.

(2) In the calculation of the grants under the Act for a municipality, where incorporation took place effective on or after the first day of the calendar year and no data pertaining to the immediately preceding year is available, or where responsibility for any service delivery has been changed, the Minister may revise data pertaining to the year of incorporation or the year of the change of responsibility for a service delivery for data pertaining to the immediately preceding year.

(3) In the calculation of the grants under the Act for a municipality, where incorporation, a major boundary change or a change in responsibility for delivery of any service took place after the first day of the immediately preceding year, the Minister may revise data pertaining to that year to take into account the incorporation, boundary changes or delivery of service changes. O. Reg. 527/86, s. 7.

8. If there is an overpayment or underpayment of grants paid to a municipality, the Minister shall adjust any grant paid to that municipality in the immediately following year by the amount of such overpayment or underpayment. O. Reg. 527/86, s. 8.

9.—(1) Grants under this Regulation are conditional upon the submission by each municipality to the Ministry of the 1985 financial information return in the manner prescribed under section 3 of the *Municipal Affairs Act* and section 84 of the *Municipal Act* together with any additional data or amendments to the 1985 financial information return that may be required by the Minister within the time required by the Minister.

(2) Where a municipality fails to provide the additional data or amendments to the 1985 financial information return within the time required under subsection (1), the Minister may rely on such data as the Minister considers relevant to calculate the amount of the grant payable to the municipality.

(3) Where a grant has been calculated under subsection (2), a municipality may request a recalculation of the grant payable to the municipality by submitting such additional data or amendments to the 1985 financial information return as is requested by the Minister.

(4) Where the Minister considers revisions to the 1985 financial information return by a municipality to be necessary for the purposes of the payment of a grant under the Act, the Minister may amend the data as the Minister considers necessary to calculate the amount of the grant payable to the municipality. O. Reg. 527/86, s. 9.

10. The Minister in any year may make interim payments to each municipality not exceeding 50 per cent of the total grants paid to each municipality under the Act in the immediately preceding year. O. Reg. 527/86, s. 10.

11.—(1) This Regulation, except section 8, applies to grants in respect of 1986 only.

(2) Section 8 applies to grants in respect of 1985 and 1986. O. Reg. 527/86, s. 11.

12. Ontario Regulations 339/85 and 568/85 are revoked.

Schedule

<u>MUNICIPALITY</u>	<u>EQUALIZATION FACTOR</u>
ADELAIDE TP	4.98
ADJALA TP	2.71
ADMASTON TP	5.53
ADOLPHUSTOWN TP	7.34
AILSA CRAIG V	25.49
AIRY TP	22.40
AJAX T	30.49
ALBEMARLE TP	36.58
ALBERTON TP	4.24
ALDBOROUGH TP	4.41
ALEXANDRIA T	8.74
ALFRED TP	6.46
ALFRED V	7.15
ALICE AND FRASER TP	6.17
ALLISTON T	13.51
ALMONTE T	5.56
ALNWICK TP	3.12
ALVINSTON V	7.82
AMABEL TP	37.76
AMARANTH TP	28.55
AMELIASBURGH TP	23.83
AMHERST ISLAND TP	5.23
AMHERSTBURG T	40.96
ANCASTER T	5.75
ANDERDON TP	32.68
ANSON HINDON AND MINDEN TP	2.06
ARKONA V	6.76

<u>MUNICIPALITY</u>	<u>EQUALIZATION FACTOR</u>
ARMOUR TP	84.91
ARMSTRONG TP	8.89
ARNPRIOR T	9.09
ARRAN TP	30.96
ARTEMESIA TP	39.95
ARTHUR TP	5.38
ARTHUR V	35.10
ASHFIELD TP	3.89
ASPHODEL TP	5.61
ASSIGINACK TP	48.04
ATHENS V	8.05
ATHOL TP	6.68
ATIKOKAN TP	12.82
ATWOOD TP	3.16
AUGUSTA TP	8.63
AURORA T	26.11
AYLMER T	9.84
BAGOT AND BLYTHFIELD TP	3.42
BALDWIN TP	0.73
BANCROFT V	4.57
BANGOR WICKLOW AND MCCLURE TP	2.24
BARCLAY TP	8.20
BARRIE C	36.22
BARRIE ISLAND TP	47.93
BARRIE TP	4.53
BARRY'S BAY V	6.25
BASTARD AND SOUTH BURGESS TP	5.03

<u>MUNICIPALITY</u>	<u>EQUALIZATION FACTOR</u>	<u>MUNICIPALITY</u>	<u>EQUALIZATION FACTOR</u>
BATH V	8.40	BONFIELD TP	23.16
BATHURST TP	5.00	BOSANQUET TP	4.01
BAYFIELD V	3.64	BOTHWELL T	9.31
BAYHAM TP	5.71	BRACEBRIDGE T	78.85
BEACHBURG V	6.48	BRADFORD T	32.27
BEARDMORE TP	24.49	BRAESIDE V	7.67
BECKWITH TP	4.21	BRAMPTON C	31.55
BEDFORD TP	4.86	BRANT TP	30.00
BEETON V	31.64	BRANTFORD TP	6.87
BELLE RIVER T	5.32	BRANTFORD C	13.29
BELLEVILLE C	21.53	BRETHOUR TP	3.60
BELMONT V	6.38	BRIGHTON TP	4.71
BELMONT AND METHUEN TP	4.32	BRIGHTON T	6.22
BENTINCK TP	45.58	BROCK TP	11.54
BEXLEY TP	1.69	BROCKVILLE C	7.84
BICROFT TP	11.81	BROMLEY TP	8.90
BIDDULPH TP	4.18	BROOKE TP	4.69
BILLINGS TP	51.57	BROUGHAM TP	3.25
BLACK RIVER - MATHESON TP	38.10	BRUCE MINES T	39.81
BLANDFORD - BLENHEIM TP	5.67	BRUCE TP	29.97
BLANSHARD TP	4.13	BRUDENELL AND LYNDONCH TP	3.91
BLENHEIM T	33.09	BRUSSELS V	6.45
BLIND RIVER T	35.60	BURFORD TP	5.63
BLOOMFIELD V	24.33	BURK'S FALLS V	87.24
BLUE TP	4.50	BURLEIGH AND ANSTRUTHER TP	24.07
BLYTH V	6.37	BURLINGTON C	9.36
BOBCAYGEON V	29.45	BURPEE TP	45.30

<u>MUNICIPALITY</u>	<u>EQUALIZATION FACTOR</u>	<u>MUNICIPALITY</u>	<u>EQUALIZATION FACTOR</u>
CACHE BAY T	28.48	CHANDOS TP	3.74
CALDWELL TP	1.72	CHAPLEAU TP	28.82
CALEDON T	25.07	CHAPMAN TP	84.38
CALEDONIA TP	5.16	CHAPPLE TP	2.80
CALVIN TP	2.60	CHARLOTTENBURGH TP	6.13
CAMBRIDGE TP	4.51	CHARLTON T	15.38
CAMBRIDGE C	16.25	CHATHAM TP	4.31
CAMDEN EAST TP	7.87	CHATHAM C	10.02
CAMDEN TP	4.31	CHATSWORTH V	47.56
CAMERON ID	5.05	CHESLEY T	42.09
CAMPBELLFORD T	5.54	CHESTERVILLE V	9.93
CAPREOL T	11.23	CHISHOLM TP	4.38
CARADOC TP	5.65	CHRISTIE TP	77.00
CARDEN TP	2.79	CLARENCE TP	5.09
CARDIFF TP	3.80	CLARENDON AND MILLER TP	4.42
CARDINAL V	10.28	CLIFFORD V	29.65
CARLETON PLACE T	5.41	CLINTON T	7.58
CARLING TP	74.20	COBALT T	8.46
CARLOW TP	3.22	COBDEN V	6.04
CARNARVON TP	50.54	COBOURG T	8.51
CARRICK TP	27.39	COCHRANE T	33.73
CASEY TP	2.08	COCKBURN ISLAND TP	37.04
CASIMIR JENNINGS & APPLEBY TP	11.96	COLBORNE V	5.76
CASSELMAN V	4.78	COLBORNE TP	4.31
CAVAN TP	4.20	COLCHESTER SOUTH TP	3.71
CHALK RIVER V	6.70	COLCHESTER NORTH TP	4.13
CHAMBERLAIN TP	11.49	COLDWATER V	26.46

EQUALIZATION FACTORMUNICIPALITY

COLEMAN TP	7.16
COLLINGWOOD T	22.73
COLLINGWOOD TP	42.17
CONNEE TP	4.74
COOKSTOWN V	4.75
CORNWALL TP	8.43
CORNWALL C	10.84
COSBY MASON AND MARTLAND TP	2.01
CRAMAHE TP	4.59
CREEMORE V	33.72
CULROSS TP	25.50
CUMBERLAND TP	4.06
DACK TP	29.47
DALTON TP	2.50
DARLING TP	3.93
DAWN TP	5.46
DAY AND BRIGHT ADDITIONAL TP	32.18
DEEP RIVER T	9.40
DELAWARE TP	4.23
DELHI TP	6.09
DELORO V	7.00
DENBIGH ABINGER AND ASHBY TP	5.71
DERBY TP	46.16
DESERONTO T	5.12
DILKE TP	4.80
DORION TP	8.88
DOURO TP	6.13

EQUALIZATION FACTORMUNICIPALITY

DOVER TP	3.36
DOWNIE TP	4.44
DRAYTON V	28.08
DRESDEN T	8.26
DRUMMOND TP	4.52
DRYDEN T	8.29
DUBREUILVILLE ID	32.87
DUMMER TP	5.58
DUNDALK V	49.58
DUNDAS T	7.35
DUNGANNON TP	3.83
DUNHILL T	7.43
DUNWICH TP	4.25
DURHAM T	45.89
DUTTON V	7.86
DYMOND TP	10.14
DYSART ET AL TP	1.69
EAR FALLS TP	12.06
EAST FERRIS TP	27.95
EAST GARAFRAXA TP	29.82
EAST GWILLIMBURY T	20.21
EAST HAWKESBURY TP	5.18
EAST LUTHER TP	4.33
EAST WAWANOSH TP	4.93
EAST WILLIAMS TP	4.19
EAST YORK B	8.35
EAST ZORRA - TAVISTOCK TP	5.37

<u>MUNICIPALITY</u>	<u>EQUALIZATION FACTOR</u>	<u>MUNICIPALITY</u>	<u>EQUALIZATION FACTOR</u>
EASTNOR TP	36.90	ESSEX T	5.96
EDWARDSBURGH TP	7.44	ETOBICOKE C	8.35
EGANVILLE V	6.04	EUPHEMIA TP	4.46
EGREMONT TP	35.65	EUPHRASIA TP	38.73
EKFRID TP	3.96	EVANTUREL TP	8.37
ELDERSLIE TP	29.21	EXETER T	6.36
ELDON TP	3.45	FARADAY TP	3.02
ELIZABETHTOWN TP	6.96	FAUQUIER-STICKLAND TP	42.53
ELLICE TP	4.66	FENELON TP	3.85
ELLIOT LAKE T	30.67	FENELON FALLS V	4.42
ELMA TP	5.77	FERGUS T	38.26
ELMVALE V	29.51	FIELD TP	22.24
ELORA V	27.90	FINCH TP	4.91
ELZEVR AND GRIMSTHORPE TP	3.26	FINCH V	6.98
EMILY TP	4.46	FLAMBOROUGH T.	5.95
EMO TP	2.82	FLESHERTON V	53.48
ENGLEHART T	27.62	FLOS TP	4.86
ENNSKILLEN TP	4.05	FOLEY TP	80.94
ENNISMORE TP	30.48	FOREST T	8.91
ERAMOSA TP	4.14	FORT ERIE T	10.49
ERIE BEACH V	27.11	FORT FRANCES T	11.70
ERIEAU V	5.40	FRANKFORD V	5.10
ERIN TP	3.82	FRONT OF LEEDS & LANSDOWNE TP	5.04
ERIN V	26.93	FRONT OF ESCOTT TP	4.94
ERNESTOWN TP	8.92	FRONT OF YONGE TP	6.54
ESPANOLA T	10.35	FULLARTON TP	4.42
ESSA TP	4.97	GALWAY AND CAVENDISH TP	90.42

EQUALIZATION FACTORMUNICIPALITY

GANANOQUE ST	8.52
GAUTHIER ID	16.32
GEORGIAN BAY TP	73.66
GEORGINA TP	22.28
GERALDTON T	8.03
GILLIES TP	4.23
GLACKMEYER TP	26.60
GLAMORGAN TP	0.75
GLANBROOK TP	6.36
GLENCOE V	34.54
GLENELG TP	39.42
GLOUCESTER C	4.72
GODERICH T	7.09
GODERICH TP	4.02
GOLDEN ID	8.64
GORDON TP	46.50
GORE BAY T	50.46
GOSFIELD SOUTH TP	4.22
GOSFIELD NORTH TP	4.54
GOULBOURN TP	4.23
GRAND BEND V	5.38
GRAND VALLEY V	24.41
GRATTAN TP	5.08
GRAVENHURST T	76.34
GREENOCK TP	29.45
GREY TP	4.98
GRIFFITH AND MATAWATCHAN TP	3.92

MUNICIPALITYEQUALIZATION FACTOR

GRIMSBY T	7.84
GUELPH C	26.74
GUELPH TP	4.64
HAGAR TP	3.04
HAGARTY AND RICHARDS TP	3.98
HAGERMAN TP	84.45
HAILEYBURY T	32.63
HALDIMAND T	14.42
HALDIMAND TP	3.82
HALLOWELL TP	8.38
HALTON HILLS T	7.61
HAMILTON C	11.90
HAMILTON TP	4.00
HANOVER T	45.70
HARLEY TP	2.16
HARRIS TP	5.19
HARRISTON T	7.80
HARROW T	5.97
HARVEY TP	3.66
HARWICH TP	4.28
HASTINGS V	5.82
HAVELOCK V	8.50
HAWKESBURY T	8.18
HAY TP	3.54
HEAD CLARA AND MARIA TP	7.36
HEARST T	30.91
HENSALL V	7.82

<u>MUNICIPALITY</u>	<u>EQUALIZATION FACTOR</u>	<u>MUNICIPALITY</u>	<u>EQUALIZATION FACTOR</u>
HEPWORTH V	41.33	IROQUOIS FALLS T	42.68
HERSCHEL TP	2.44	IROQUOIS V	11.31
HIBBERT TP	4.38	JAFFRAY AND MELICK TP	6.43
HIGHGATE V	7.34	JAMES TP	24.31
HILLIARD TP	4.36	JOCELYN TP	35.41
HILLIER TP	6.57	JOHNSON TP	32.36
HILTON BEACH V	38.81	JOLY TP	84.40
HILTON TP	37.19	KALADAR ANGLESEA & EFFINGHAM TP	6.87
HINCHINBROOKE TP	5.21	KANATA C	3.38
HOLLAND TP	42.05	KAPUSKASING T	46.56
HOPE TP	4.62	KEARNEY T	82.42
HORTON TP	5.64	KEEWATIN T	6.89
HOWARD TP	3.51	KEMPTVILLE T	6.77
HOWE ISLAND TP	4.71	KENNEBEC TP	4.86
HOWICK TP	5.20	KENORA T	34.03
HOWLAND TP	51.13	KENYON TP	6.30
HUDSON TP	3.83	KEPEL TP	44.87
HULLETT TP	4.53	KERNS TP	9.38
HUMPHREY TP	72.61	KILLALOE STATION V	6.15
HUNGERFORD TP	3.68	KINCARDINE TP	33.24
HUNTINGDON TP	4.02	KINCARDINE T	43.53
HUNTSVILLE T	81.69	KING TP	19.52
HURON TP	28.12	KINGSFORD ID	1.64
IGNACE TP	7.45	KINGSTON TP	7.76
INGERSOLL T	9.74	KINGSTON C	9.46
INNISFIL TP	3.78	KINGSVILLE T	37.62
IRON BRIDGE V	37.67	KINLOSS TP	25.59

<u>MUNICIPALITY</u>	<u>EQUALIZATION FACTOR</u>	<u>MUNICIPALITY</u>	<u>EQUALIZATION FACTOR</u>
KIRKLAND LAKE T	8.31	LONDON C	10.96
KITCHENER C	11.61	LONDON TP	5.25
KITLEY TP	7.25	LONGAC T	7.54
L'ORIGNAL V	5.52	LONGUEUIL TP	6.45
LA VALLEE TP	1.52	LOUGHBOROUGH TP	6.31
LAIRD TP	32.91	LUCAN V	29.49
LAKE OF BAYS TP	77.38	LUCKNOW V	41.44
LAKEFIELD V	6.97	LUTTERWORTH TP	0.66
LANARK TP	5.32	MACDONALD MEREDITH ET AL TP	35.54
LANARK V	6.54	MACHAR TP	82.74
LANCASTER V	7.61	MACHIN TP	4.76
LANCASTER TP	5.69	MADOC TP	4.25
LARDER LAKE TP	17.50	MADOC V	33.29
LATCHFORD T	30.25	MAGNETAWAN V	85.62
LAVANT DALHOUSIE ET AL TP	3.95	MAIDSTONE TP	5.26
LAXTON DIGBY AND LONGFORD TP	1.48	MALAHIDE TP	5.75
LEAMINGTON T	42.43	MALDEN TP	26.69
LIMERICK TP	2.05	MANITOUWADGE TP	39.63
LINCOLN T	7.08	MANVERS TP	3.35
LINDSAY TP	36.59	MARA TP	4.57
LINDSAY T	7.48	MARATHON TP	43.93
LION'S HEAD V	41.91	MARIPOSA TP	3.73
LISTOWEL T	8.06	MARKDALE V	48.70
LITTLE CURRENT T	53.24	MARKHAM T	23.86
LOBO TP	4.98	MARMORA AND LAKE TP	3.25
LOCHIEL TP	6.07	MARMORA V	6.86
LOGAN TP	4.23	MARYBOROUGH TP	5.16

EQUALIZATION FACTOR

MUNICIPALITY

MILTON T	7.09
MILVERTON V	8.39
MINTO TP	5.28
MISSISSAUGA C	33.26
MITCHELL T	7.52
MONMOUTH TP	0.92
MONO TP	3.92
MONTAGUE TP	5.17
MONTAGLE TP	2.70
MOONBEAM TP	34.29
MOORE TP	7.85
MOOSONEE DEV AREA BD	32.24
MORLEY TP	3.66
MORNINGTON TP	4.98
MORRIS TP	4.97
MORRISBURG V	7.18
MORSON TP	22.96
MOSA TP	3.58
MOUNT FOREST T	7.22
MOUNTAIN TP	5.77
MULMUR TP	3.80
MURRAY TP	4.94
MUSKOKA LAKES TP	68.85
NAIRN TP	9.95
NAKINA TP	7.18
NANTICOKE C	6.14
NAPANEE T	10.47

EQUALIZATION FACTOR

MUNICIPALITY

MASSEY T	8.50
MATACHEWAN ID	9.39
MATCHEDASH TP	2.87
MATILDA TP	6.88
MATTAWA T	23.60
MATTAWAN TP	1.83
MATTICE - VAL COTE TP	47.90
MAXVILLE V	7.61
MAYO TP	2.66
MCCROSSON AND TOVELL TP	21.75
MCDUGALL TP	84.22
MCGARRY TP	30.73
MCGILLIVRAY TP	3.68
MCKELLAR TP	79.43
MCKILLOP TP	3.90
MCMURRICH TP	87.07
MCNAB TP	5.37
MEAFORD T	45.65
MEDONTE TP	3.85
MELANCTHON TP	4.46
MERRICKVILLE V	6.78
MERSEA TP	3.95
METCALFE TP	4.07
MICHIPICOTEN TP	29.19
MIDLAND T	13.80
MILDMAY V	36.30
MILLBROOK V	5.09

<u>MUNICIPALITY</u>	<u>EQUALIZATION FACTOR</u>	<u>MUNICIPALITY</u>	<u>EQUALIZATION FACTOR</u>
NEEBING TP	4.21	NORTH MARYSBURGH TP	6.27
NEPEAN C	4.10	NORTH MONAGHAN TP	3.47
NEUSTADT V	49.20	NORTH PLANTAGENET TP	5.52
NEW LISKEARD T	9.46	NORTH YORK C	8.35
NEWBORO V	8.10	NORWICH TP	5.54
NEWBURGH V	8.25	NORWOOD V	7.80
NEWBURY V	6.96	NOTTAWASAGA TP	4.09
NEWCASTLE T	4.06	O'CONNOR TP	3.61
NEWMARKET T	22.52	OAKLAND TP	5.68
NIAGARA FALLS C	10.48	OAKVILLE T	8.87
NIAGARA-ON-THE-LAKE T	5.12	OIL SPRINGS V	29.55
NICHOL TP	4.90	OLDEN TP	4.76
NICKEL CENTRE T	12.46	OLIVER TP	4.45
NIPICON TP	6.62	ONEMEE V	5.84
NIPISSING TP	90.56	ONAPING FALLS T	18.25
NORFOLK TP	5.30	ONONDAGA TP	5.74
NORMANBY TP	33.85	OPASATIKA TP	62.50
NORTH ALGONA TP	4.41	OPS TP	4.06
NORTH BAY C	8.87	ORANGEVILLE T	6.02
NORTH BURGESS TP	3.27	ORFORD TP	4.03
NORTH CROSBY TP	3.61	ORILLIA C	9.63
NORTH DORCHESTER TP	5.23	ORILLIA TP	5.81
NORTH DUMFRIES TP	8.27	ORO TP	3.88
NORTH EASTHOPE TP	4.52	OSGOODE TP	3.59
NORTH ELMLEY TP	4.71	OSHAWA C	16.43
NORTH FREDERICKSBURGH TP	7.96	OSNABRUCK TP	7.92
NORTH HIMSWORTH TP	87.61	OSO TP	5.24

EQUALIZATION FACTORMUNICIPALITY

OSPREY TP	37.37
OTONABEE TP	5.57
OTTAWA C	9.47
OWEN SOUND C	27.61
OXFORD (ON RIDEAU) TP	5.28
PAIPOONGE TP	5.81
PAISLEY V	42.98
PAKENHAM TP	5.68
PALMERSTON & N & S CANONTO TP	4.89
PALMERSTON T	8.41
PAPINEAU TP	3.55
PARIS T	8.52
PARKHILL T	28.54
PARRY SOUND T	85.16
PEEL TP	4.83
PELEE TP	4.42
PELHAM T	7.60
PEMBROKE C	8.86
PEMBROKE TP	6.00
PENETANGUISHENE T	8.26
PERCY TP	4.27
PERRY TP	86.62
PERTH T	7.44
PETAWAWA V	7.39
PETAWAWA TP	6.19
PETERBOROUGH C	10.57
PETROLIA T	30.91

MUNICIPALITYEQUALIZATION FACTOR

PICKERING T	28.07
PICKLE LAKE TP	40.57
PICTON T	33.56
PILKINGTON TP	4.63
PITTSBURGH TP	6.12
PLANTAGENET V	33.54
PLUMMER ADDITIONAL TP	31.31
PLYMPTON TP	3.74
POINT EDWARD V	8.11
PORT BURWELL V	7.95
PORT COLBORNE C	12.05
PORT ELGIN T	42.36
PORT HOPE T	7.19
PORT MCNICOLL V	36.79
PORT STANLEY V	7.38
PORTLAND TP	6.76
POWASSAN T	89.96
PRESCOTT ST	10.34
PRINCE TP	24.18
PROTON TP	38.31
PUSLINCH TP	4.08
RADCLIFFE TP	3.48
RAGLAN TP	4.43
RAINY RIVER T	6.94
RALEIGH TP	4.53
RAMA TP	4.49
RAMSAY TP	5.03

EQUALIZATION FACTORMUNICIPALITY

RATTER AND DUNNET TP	2.51
RAWDON TP	4.46
RAYSIDE - BALFOUR T	9.40
REAR OF YONGE AND ESCOTT TP	4.83
REAR OF LEEDS & LANSDOWNE TP	5.12
RED LAKE TP	6.65
RED ROCK TP	44.51
RENFREW T	8.79
RICHMOND HILL T	23.23
RICHMOND TP	8.38
RIDEAU TP	3.55
RIDGETOWN T	32.21
RIPLEY V	38.28
ROCHESTER TP	4.33
ROCKCLIFFE PARK V	4.34
ROCKLAND T	5.52
RODNEY V	8.34
ROLPH BUCHANAN WYLIE & MCKAY TP	6.24
ROMNEY TP	4.80
ROSS TP	6.56
ROSSEAU V	75.95
ROXBOROUGH TP	5.74
RUSSELL TP	4.40
RUTHERFORD & GEORGE ISLAND TP	52.53
RYERSON TP	83.93
SANDFIELD TP	52.87
SANDWICH SOUTH TP	4.64

MUNICIPALITY

SANDWICH WEST TP	4.95
SARAWAK TP	44.53
SARNIA C	19.72
SARNIA TP	5.29
SAUGEEN TP	31.36
SAULT STE MARIE C	17.22
SCARBOROUGH C	8.35
SCHREIBER TP	7.48
SCUCOG TP	4.49
SEAFORTH T	6.95
SEBASTOPOL TP	3.55
SEYMOUR TP	4.33
SHALLOW LAKE V	49.29
SHEDDEN ID	38.08
SHEFFIELD TP	6.13
SHELBURNE T	30.19
SHERBORNE MCCLINTOCK ET AL TP	1.61
SHERWOOD JONES AND BURNS TP	4.34
SHUNIAH TP	4.85
SIDNEY TP	4.92
SIMCOE T	8.43
SIOUX LOOKOUT T	5.96
SIOUX NARROWS ID	4.09
SMITH TP	5.89
SMITHS FALLS ST	12.31
SMOOTH ROCK FALLS T	45.91
SNOWDON TP	0.57
SOMBRA TP	7.03

EQUALIZATION FACTORMUNICIPALITY

SOMERVILLE TP	1.76
SOPHIASBURGH TP	29.81
SOUTH ALGONA TP	3.37
SOUTH CROSBY TP	4.52
SOUTH DORCHESTER TP	4.06
SOUTH DUMFRIES TP	5.43
SOUTH EASTHOPE TP	4.86
SOUTH ELSLEY TP	4.64
SOUTH FREDERICKSBURGH T	7.59
SOUTH GOWER TP	4.88
SOUTH HIMSWORTH TP	89.48
SOUTH MARYSBURGH TP	6.23
SOUTH MONAGHAN TP	3.85
SOUTH PLANTAGENET TP	5.78
SOUTH RIVER V	94.02
SOUTH SHERBROOKE TP	3.60
SOUTH-WEST OXFORD TP	5.29
SOUTHAMPTON T	40.56
SOUTHWOLD TP	7.22
SPRINGER TP	5.89
SPRINGFIELD V	6.24
ST CATHARINES C	9.45
ST CLAIR BEACH V	4.92
ST EDMUNDS TP	36.76
ST ISIDORE DE PRESCOTT	6.91
ST JOSEPH TP	34.80
ST MARYS ST	36.14

MUNICIPALITYEQUALIZATION FACTOR

ST THOMAS C	11.11
ST VINCENT TP	40.51
STAFFORD TP	7.00
STANHOPE TP	1.27
STANLEY TP	3.85
STAYNER T	40.75
STEPHEN TP	4.14
STIRLING V	32.21
STONE CREEK C	12.62
STORRINGTON TP	5.91
STRATFORD C	7.43
STRATHROY T	8.91
STRONG TP	87.57
STURGEON FALLS T	44.05
STURGEON POINT V	3.82
SUDBURY C	36.51
SULLIVAN TP	37.31
SUNDRIDGE V	88.94
SUNNIDALE TP	36.43
SYDENHAM TP	40.31
TARA V	43.30
TARBUTT AND TARBUTT ADD'NL TP	32.60
TAY TP	5.33
TECUMSEH T	5.15
TECUMSETH TP	4.10
TEESWATER V	40.03
TEHKUMMAH TP	49.19

<u>MUNICIPALITY</u>	<u>EQUALIZATION FACTOR</u>
TEMAGAMI TP	39.19
TERRACE BAY TP	33.49
THAMESVILLE V	33.70
THE ARCHIPELAGO TP	72.90
THE NORTH SHORE TP	34.65
THE SPANISH RIVER TP	6.14
THEDFORD V	8.63
THESSALON TP	34.44
THESSALON T	37.57
THOMPSON TP	31.39
THORNBURY T	42.36
THORNLOE V	21.77
THOROLD C	11.15
THUNDER BAY C	7.64
THURLOW TP	5.53
TILBURY T	32.63
TILBURY NORTH TP	4.14
TILBURY WEST TP	3.91
TILBURY EAST TP	3.91
TILSONBURG T	9.86
TIMMINS C	10.75
TINY TP	4.42
TIVERTON V	48.19
TORONTO C	8.35
TOSORONTIO TP	31.19
TOTTENHAM V	30.17
TRENTON C	8.53

<u>MUNICIPALITY</u>	<u>EQUALIZATION FACTOR</u>
TROUT CREEK T	90.49
TUCKERSMITH TP	4.55
TUDOR AND CASHEL TP	2.42
TURNBERRY TP	5.50
TWEED V	5.67
TYENDINAGA TP	5.88
USBORNE TP	3.66
UXBRIDGE TP	4.30
VAL RITA-HARTY TP	44.90
VALLEY EAST T	8.16
VANIER C	9.39
VANKLEEK HILL T	28.30
VAUGHAN T	24.19
VERULAM TP	3.67
VESPRE TP	4.29
VICTORIA HARBOUR V	29.10
VIENNA V	7.54
WAINFLEET TP	7.89
WALDEN T	11.70
WALKERTON T	42.51
WALLACE TP	5.77
WALLACEBURG T	10.62
WARDSVILLE V	7.51
WARWICK TP	4.14
WASAGA BEACH T	83.13
WATERLOO C	10.13
WATFORD V	7.76

<u>MUNICIPALITY</u>	<u>EQUALIZATION FACTOR</u>	<u>MUNICIPALITY</u>	<u>EQUALIZATION FACTOR</u>
WEBBWOOD T	6.34	WINCHESTER TP	6.04
WELLAND C	11.91	WINDSOR C	24.72
WELLESLEY TP	6.48	WINGHAM T	7.65
WELLINGTON V	8.12	WOLFE ISLAND TP	6.33
WEST CARLETON TP	81.59	WOLFORD TP	5.52
WEST GARAFRAXA TP	4.52	WOLLASTON TP	2.83
WEST GWILLIMBURY TP	3.45	WOODSTOCK C	9.38
WEST HAWKESBURY TP	5.47	WOODVILLE V	29.50
WEST LINCOLN TP	7.33	WOOLWICH TP	13.88
WEST LORNE V	8.43	WORTHINGTON TP	6.77
WEST LUTHER TP	5.40	WYOMING V	30.27
WEST NISSOURI TP	4.93	YARMOUTH TP	5.64
WEST WAWANOSH TP	5.37	YORK C	8.35
WEST WILLIAMS TP	3.57	ZONE TP	4.07
WESTMEATH TP	6.19	ZORRA TP	5.27
WESTMINSTER TP	6.53	ZURICH V	6.32
WESTPORT V	6.82		
WHEATLEY V	33.09		
WHITBY T	7.02		
WHITECHURCH - STOUFFVILLE T	21.82		
WHITE RIVER TP	6.35		
WIARTON T	40.71		
WICKSTEED TP	61.73		
WILBERFORCE TP	5.17		
WILLIAMSBURGH TP	8.77		
WILMOT TP	11.70		
WINCHESTER V	7.08		

SMALL BUSINESS DEVELOPMENT CORPORATIONS ACT

O. Reg. 528/86.

Forms.

Made—September 2nd, 1986.

Filed—September 2nd, 1986.

REGULATION TO AMEND
REGULATION 914 OF REVISED REGULATIONS OF ONTARIO, 1980
MADE UNDER THE
SMALL BUSINESS DEVELOPMENT CORPORATIONS ACT

1. Section 3 of Regulation 914 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 157/84, is revoked and the following substituted therefor:

3. The certificate referred to in clause 21 (3) (a) or 22 (2) (a) of the Act or an application for,

(a) a grant under subsection 21 (1) or (6) of the Act; or

(b) a tax credit under section 22 of the Act,

shall be,

(c) in Form 3, where a person or corporation acquired equity shares of a small business development corporation before the 24th day of October, 1985; or

(d) in Form 3a, where a person or corporation acquires equity shares of a small business development corporation on or after the 24th day of October, 1985. O. Reg. 528/86, s. 1.

2. Section 6 of the said Regulation, as remade by section 1 of Ontario Regulation 157/84, is revoked.

3.—(1) Form 1 of the said Regulation, as remade by section 2 of Ontario Regulation 157/84, is revoked and the following substituted therefor:

Form 1

Small Business Development Corporations Act

Ministry of
Revenue

Small Business
Development Corporations
Program

P.O. Box 625
33 King Street West
Oshawa, Ontario
L1H 8H9

Application/Proposal For Registration — DC 02

Small Business Development Corporation

				CCR Identification Number	
Name of Corporation				Telephone Number	
Operating Name (if different from above)					
Registered Office Location in Ontario — Street Number and Name					
City, Town, Village			Province		Postal Code
			Ontario		_ _ _ _
Mailing Address (if different from above)					
City, Town, Village			Province		Postal Code
					_ _ _ _

Classes (and Series, if any) of Shares	Authorized Capital		Stated Capital	
	Number of Shares	Maximum Aggregate Consideration	Number of Shares Issued	Aggregate Cash Consideration

Debt Obligations Issued by the Corporation			
Mortgages	\$	Other (Specify)	\$
Bonds	\$		\$
Debentures	\$		\$

Directors of Corporation

Surname		Given Name(s)		Occupation/Profession
Residence Address — Street Number and Name (Apt. No., R.R. No.)				
City, Town, Village				Telephone Numbers
Province		Postal Code		Home:
				Business:

Surname		Given Name(s)		Occupation/Profession
Residence Address — Street Number and Name (Apt. No., R.R. No.)				
City, Town, Village				Telephone Numbers
Province		Postal Code		Home:
				Business:

Surname		Given Name(s)		Occupation/Profession
Residence Address — Street Number and Name (Apt. No., R.R. No.)				
City, Town, Village				Telephone Numbers
Province		Postal Code		Home:
				Business:

Officers of Corporation

Surname		Given Name(s)		Occupation/Profession	
Residence Address — Street Number and Name (Apt. No., R.R. No.)				Office Held	
City, Town, Village				Telephone Numbers	
Province		Postal Code		Home:	
				Business:	

Surname		Given Name(s)		Occupation/Profession	
Residence Address — Street Number and Name (Apt. No., R.R. No.)				Office Held	
City, Town, Village				Telephone Numbers	
Province		Postal Code		Home:	
				Business:	

Surname		Given Name(s)		Occupation/Profession	
Residence Address — Street Number and Name (Apt. No., R.R. No.)				Office Held	
City, Town, Village				Telephone Numbers	
Province		Postal Code		Home:	
				Business:	

Transfer Agent (if one is to be appointed)

Name		Telephone Number	
Street Number and Name (Apt. No., P.O. Box, R.R. No.)			
City, Town, Village		Province	Postal Code

Trustee (Bank, Trust Company, etc. with whom the trust account required by section 8 of the Act will be maintained)

Name		Telephone Number	
Street Number and Name (Apt. No., P.O. Box, R.R. No.)			
City, Town, Village		Province	Postal Code

The Minister of Revenue may verify all statements made in this proposal. I understand that it is an offence to make a false or misleading statement in a proposal.

The undersigned have authority to bind the corporation.

Signature of Director or Officer	
Name of Director or Officer (please print)	
Date	

Signature of Second Officer	
Name of Second Officer (please print)	
Date	

(Where an individual signs in the capacity of a director (or officer) and as a second officer of the corporation, please ensure that signature is affixed in both boxes provided above.

Affidavit

I, _____
 of the _____
 in the _____
 make oath and say as follows:

1. I am one of the directors/officers of _____
 who signed this proposal, and have knowledge of the matters hereinafter sworn.
2. The corporation has complied with all requirements of section 4 of the Small Business Development Corporations Act.
3. All Statements made in this proposal for registration of the corporation as a small business development corporation are true and correct.
4. _____, who also signed this
 proposal is an officer/director of the corporation.

SWORN before me

at the _____
 in the _____
 this _____
 day of _____ 19____

 Director or Officer

A Commissioner, etc.

(2) The said Regulation is amended by adding thereto the following Form:

Form 3a

Small Business Development Corporations Act



Ministry
of
Revenue

Small Business
Development
Corporations
Program

P.O. Box 625,
33 King St. W.,
Oshawa, Ontario,
L1H 8H9

**Certificate of Investment/
Application for Incentive – DC 01A**

Certificate Number

Please Read Instructions On Reverse Before Completing This Form

Part A – Certificate of Investment – To be completed by Small Business Development Corporation (S.B.D.C.)

Name of Small Business Development Corporation			Registration Number		
Name of Shareholder (as shown on share certificate)					
Class (and Series, if any) of Shares Issued	Number of Shares Issued	Cash Consideration Received \$	Date Consideration Received Y Y M M D D	Share Certificate Number	Date Share Certificate Issued Y Y M M D D

We Certify That:

The shares described in this Certificate have been fully paid for in cash consideration.

The person shown above as the Shareholder has been recorded in the share register of the Corporation as the Registered owner.

In the case of a Northern and Eastern Small Business Development Corporation, prior to the issuance of this Certificate, an amount equal to 30% of the consideration received for the shares described in this Certificate has been deposited in trust for the Corporation and Crown jointly in accordance with subsection 8(1)(a) of the Small Business Development Corporations Act.

In the case of a Small Business Development Corporation that is not a Northern and Eastern Small Business Development Corporation, prior to the issuance of this Certificate, an amount equal to 25% of the consideration received for the shares described in this Certificate on or after October 24, 1985 has been deposited in trust for the Corporation and Crown jointly in accordance with subsection 8(1)(b) of the Small Business Development Corporations Act.

Signature of Corporate Secretary	Name of Corporate Secretary (please print)	Date Y Y M M D D
Signature of Other Officer	Name of Other Officer (please print)	Position/Office

Part B – Application for Incentive – To be completed by Investor

Full Name of Investor			
Residence Address (business address if the applicant is not an individual) Street Number and Name (Apt. No. or R.R. #)			
City, Town	Province	Postal Code	Telephone

The registered shareholder is: (please check the appropriate box)

- ☐ (a) an individual resident in Ontario who is also the beneficial owner of the shares (If the shares are jointly held, attach to this application the name and residence address of each joint owner.)
- ☐ (b) a registered Retirement Savings Plan, the beneficial owner of which is (provide name and residence address) _____
- ☐ (c) a registered pension fund or plan under the Income Tax Act (insert plan number) _____ of which 10 per cent of the contributors are ordinarily resident in Ontario.
- ☐ (d) a deferred profit sharing plan of (insert name of business) _____ and registered under the Income Tax Act as (insert plan number) _____ for which 10 per cent of contributors are ordinarily resident in Ontario.
- ☐ (e) a group retirement savings plan arrangement for employees or members of (insert name of business or association) _____ under which all plans are registered under the Income Tax Act.
- ☐ (f) a trust, not otherwise described above, all of the beneficiaries of which are ordinarily resident in Ontario and none of which is a corporation. (Attach to this application a list of the names and residence addresses of each beneficial owner.)
- ☐ (g) a credit union or caisse populaire incorporated under the Credit Unions and Caisses Populaires Act or a predecessor of that Act.
- ☐ (h) an unincorporated association, unincorporated syndicate, unincorporated organization or partnership, ordinarily resident in Ontario and none of whose members or partners is a corporation. (Attach to this application a list of the names and residence addresses of each member or partner.)
- ☐ (i) a corporation with a permanent establishment in Ontario exempt of tax within section 49 of the Corporations Tax Act.
- ☐ (j) a corporation which is also the beneficial owner of the shares. Ont. Corp. Tax Branch Account No. _____

Special Mailing Provisions (Unless otherwise provided, all grant cheques will be mailed to the address shown above for the Investor.)
The Investor authorizes the Minister to mail any grant cheque to the following:

In submitting this Application for Incentive, I certify that:

I am the Investor or an authorized signing officer or trustee of the Investor.

The Investor purchased the shares described above directly from the S.B.D.C. for consideration in cash and the shares are fully paid.

The Investor has/had not (delete inapplicable phrase) previously applied for an incentive in respect of other shares.

All statements made in this Application or any listing required by this Application are true and correct.

Signature of Investor or Authorized Officer or Trustee	Name of Authorized Officer or Trustee (please print)
Position Held by Authorized Officer or Trustee	Date

It is an offence to make a false or misleading statement in a Certificate of Investment/Application for Incentive.

2408A (86-03)

4. Forms 5, 6, 7 and 8, as remade by section 2 of Ontario Regulation 157/84, and Form 10 of the said Regulation, are revoked and the following substituted therefor:

Form 7

Small Business Development Corporations Act

Ministry of Small Business
of Development Corporations
Revenue Program

Small Business Development Corporations Program

P.O. Box 625
33 King Street West
Oshawa, Ontario
L1H 8H9

Notification of Material Change In Investments – DC 09

Ontario Investment Program LTD 0013		Registration Number																			
Name of Small Business Development Corporation		Telephone Number																			
Street Number and Name																					
City, Town, Village	Province	Postal Code <div style="display: flex; justify-content: space-between; width: 100%;"> <div style="width: 10%; border-bottom: 1px solid black;"></div> <div style="width: 10%; border-bottom: 1px solid black;"></div> <div style="width: 10%; border-bottom: 1px solid black;"></div> <div style="width: 10%; border-bottom: 1px solid black;"></div> <div style="width: 10%; border-bottom: 1px solid black;"></div> <div style="width: 10%; border-bottom: 1px solid black;"></div> </div>																			
Name of Small Business		Telephone Number																			
Street Number and Name																					
City, Town, Village	Province	Postal Code <div style="display: flex; justify-content: space-between; width: 100%;"> <div style="width: 10%; border-bottom: 1px solid black;"></div> <div style="width: 10%; border-bottom: 1px solid black;"></div> <div style="width: 10%; border-bottom: 1px solid black;"></div> <div style="width: 10%; border-bottom: 1px solid black;"></div> <div style="width: 10%; border-bottom: 1px solid black;"></div> <div style="width: 10%; border-bottom: 1px solid black;"></div> </div>																			
Class (and Series, if any) of Shares Held	Number of Shares Held	Consideration Paid For Shares Held \$	Date of Material Change <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="padding: 2px;">Year</th> <th style="padding: 2px;">Month</th> <th style="padding: 2px;">Day</th> </tr> <tr><td style="text-align: center;"> </td><td style="text-align: center;"> </td><td style="text-align: center;"> </td></tr> <tr><td style="text-align: center;"> </td><td style="text-align: center;"> </td><td style="text-align: center;"> </td></tr> <tr><td style="text-align: center;"> </td><td style="text-align: center;"> </td><td style="text-align: center;"> </td></tr> <tr><td style="text-align: center;"> </td><td style="text-align: center;"> </td><td style="text-align: center;"> </td></tr> <tr><td style="text-align: center;"> </td><td style="text-align: center;"> </td><td style="text-align: center;"> </td></tr> </table>	Year	Month	Day															
Year	Month	Day																			
Describe the Material Change																					

NOTE: A material change occurs if the corporation in which the investment is made ceases to be a small business or no longer meets the other requirements of an eligible investment under section 9 of the Small Business Development Corporations Act and this Notice must be filed within 30 days following the material change.
 See the reverse side of this form for the provisions of the Act regarding a material change.

The Minister of Revenue may verify all statements contained in this notification. We understand that it is an offence to make a false or misleading statement in a notification.

Affirmation

In submitting this Notification Of Material Change In Investments, we affirm that all statements made in this notification are true and correct.

Signature of Director or Officer

Data

Name of Director or Officer (please print)

1182D (86-04)

Form 8

Small Business Development Corporations Act



Ministry of
Revenue
Small Business
Development Corporations
Program

P.O. Box 625
33 King Street West
Oshawa, Ontario
L1H 8H9

Notification of Proposed Corporate Action - DC 06

Name of Small Business Development Corporation		Registration Number
Street Number and Name (Registered Office Location in Ontario)		Telephone Number
City, Town, Village	Province	Postal Code

Statement of Proposed Arrangement under s.181 of the Business Corporations Act, 1982 (See Reverse)

Attach to this Notification a copy of any statement of proposed arrangement of the Small Business Development Corporation.
This statement will be, submitted to the shareholders at a meeting called for the day of, 19

Reduction of Stated Capital Accounts

Amount of Reduction Proposed	Stated Capital Account(s) to be Reduced
Date Reduction to be Effected	Document by Which Proposed Reduction to be Effected (Please attach copy)
Reasons for Reduction	

Activity Involving Equity Shares of the Small Business Development Corporation (Purchase or Redemption by S.B.D.C. or Surrender or Conversion by Shareholder)

Description of Activity (Please give full details)	Proposed date of Activity		
	Year	Month	Day
Class (and Series, if any) of Shares Involved	Number of Shares Involved	Initial Issue Price/Share	Current Purchase Price/Share
		\$	\$

Disposition or Sale of any Eligible Investment

Name of Investment					
Shares Held		Shares to be Disposed of		Proposed date of Disposition	Consideration to be Received
Class	Number	Class	Number		
				Year Month Day	\$

Agreements or Amendments to Agreements Relating to S.B.D.C. and its Shareholders (attach copy)	Date Upon Which Agreement Will Take Effect
Agreements or Amendments to Agreements Relating to S.B.D.C. and Corporation in Which it Maintains an Investment (attach copy)	Date Upon Which Agreement Will Take Effect

The Minister of Revenue may verify all statements made in this notification. We understand that it is an offence to make a false or misleading statement in a notification.

Affirmation

In Submitting this Notification Of Proposed Corporate Action in accordance with section 17(2) of the Small Business Development Corporations Act, we affirm that all statements made in this notification are true and correct.

Signature of Director or Officer

Date

Name of Director or Officer (please print)

11808 (86-04)

Form 10

Small Business Development Corporations Act



Ministry
of
Revenue
Ontario

Small Business
Development Corporations
Program

P.O. Box 625
33 King Street West
Oshawa, Ontario
L1H 8H9

Annual Return - DC31
Small Business Development Corporation

SBDC Registration Number	
Corporations Tax Number of SBDC	
Date of Registration	Anniversary Date
Due Date	

An Annual Return must be completed by the Small Business Development Corporation and filed with the Ministry of Revenue within 90 days after each anniversary of the date of registration.

Name of Small Business Development Corporation			
Registered Office Location in Ontario - Street Number and Name			
City, Town, Village	Province Ontario	Postal Code	Person to Contact Telephone Number ()
Mailing Address (if different from above)			
City, Town, Village	Province Ontario	Postal Code	

- (1) The Small Business Development Corporation must complete Schedule A which asks for details of all investments and debt obligations from the date of registration to the anniversary date above.
- (2) The questionnaire below must also be completed along with schedules, lists or copies if or as they apply to the time period specified.

Questionnaire			
In the twelve month period immediately preceding the anniversary date of registration has there been any change -	No	Yes	If "YES", complete as specified below:
1 In the assets (shares, debt obligations, bank accounts, etc.) of the corporation?	<input type="checkbox"/>	<input type="checkbox"/>	Include with Schedule A
2 In capital structure ?	<input type="checkbox"/>	<input type="checkbox"/>	Schedule B
3 In directors or officers ?	<input type="checkbox"/>	<input type="checkbox"/>	Schedule C
4 In the identity of affiliated corporations ? (If so, provide the name and address of each affiliate.)	<input type="checkbox"/>	<input type="checkbox"/>	List
5 In shareholders ? (If so, provide either a copy of the shareholders' register or a list of shareholders, their addresses and holdings.)	<input type="checkbox"/>	<input type="checkbox"/>	Copy/List
6 In the Articles of Incorporation ? (If so, provide a certified copy of any Amendment to the Articles.)	<input type="checkbox"/>	<input type="checkbox"/>	Copy

The Minister of Revenue may verify all statements contained in this Annual Return. I understand that it is an offence to make a false or misleading statement in a return.

VERIFICATION

In submitting this Annual Return, I verify that:

I am an authorized signing officer of the Small Business Development Corporation.

All statements made in this Return and all accompanying Schedules are true and correct as of the anniversary date of registration of the Small Business Development Corporation.

Date _____ Director or Officer _____

MINISTRY USE ONLY

ELIGIBLE INVESTMENTS — List all eligible investments presently held.

Eligible Small Business			
Class & Number of Shares	% of Equity Shares owned by the SBDC	Date of Acquisition	Purchase price
Eligible Small Business			
Class & Number of Shares	% of Equity Shares owned by the SBDC	Date of Acquisition	Purchase price
Eligible Small Business			
Class & Number of Shares	% of Equity Shares owned by the SBDC	Date of Acquisition	Purchase price
Eligible Small Business			
Class & Number of Shares	% of Equity Shares owned by the SBDC	Date of Acquisition	Purchase price
Eligible Small Business			
Class & Number of Shares	% of Equity Shares owned by the SBDC	Date of Acquisition	Purchase price
Eligible Small Business			
Class & Number of Shares	% of Equity Shares owned by the SBDC	Date of Acquisition	Purchase price

FORMER ELIGIBLE INVESTMENTS

Small Business or Former Small Business		Class & Number of Shares	Original Purchase Price
Date Investment Became Ineligible	Date of Disposition of Investment	Proceeds	Net Gain/Loss
Reason for Ineligibility			
Small Business or Former Small Business		Class & Number of Shares	Original Purchase Price
Date Investment Became Ineligible	Date of Disposition of Investment	Proceeds	Net Gain/Loss
Reason for Ineligibility			
Small Business or Former Small Business		Class & Number of Shares	Original Purchase Price
Date Investment Became Ineligible	Date of Disposition of Investment	Proceeds	Net Gain/Loss
Reason for Ineligibility			

DEBT OBLIGATIONS (Monies owing to this SBDC)

Small Business			Nature of Debt Obligation
Terms of Repayment	Date of Acquisition	Total Amount of Obligation	Date of Disposition
Small Business			Nature of Debt Obligation
Terms of Repayment	Date of Acquisition	Total Amount of Obligation	Date of Disposition
Small Business			Nature of Debt Obligation
Terms of Repayment	Date of Acquisition	Total Amount of Obligation	Date of Disposition

Schedule A

Other Assets — (include all other assets of the corporation of whatsoever kind and nature not specifically set out above).

[illegible]

Total issued capital as at anniversary date _____

Schedule B

Changes in Capital Structure of SBDC.

List shares of the SBDC issued, purchased, or otherwise acquired during the year ending on the anniversary date.

Date of Share Transaction	Number, (Class & Series, if any) of Shares Involved	Consideration Received or Paid	Number of Votes per Share	Change (issue, redemption, purchase, conversion, or surrender)

Total percentage of Equity Shares owned, controlled or directed by Non-Residents as at anniversary date.	%
2019	100
2018	100
2017	100
2016	100
2015	100
2014	100
2013	100
2012	100
2011	100
2010	100
2009	100
2008	100
2007	100
2006	100
2005	100
2004	100
2003	100
2002	100
2001	100
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1879	100
1878	100
1877	100
1876	100
1875	100
1874	100
1873	100
1872	100
1871	100
1870	100
1869	100
1868	100
1867	100
1866	100
1865	100
1864	

Comments

Changes in Directors/Officers during the year ending on the anniversary date.

Surname		Given Name(s)		Occupation / Profession	
Residence Address — Street Number and Name (Apt. No., R.R. No.)				Telephone Numbers	
City, Town, Village		Province	Postal Code	Home:	
Position:		Dates Position Held			
		From: To:			
Surname		Given Name(s)		Occupation / Profession	
Residence Address — Street Number and Name (Apt. No., R.R. No.)				Telephone Numbers	
City, Town, Village		Province	Postal Code	Home:	
Position:		Dates Position Held			
		From: To:			
Surname		Given Name(s)		Occupation / Profession	
Residence Address — Street Number and Name (Apt. No., R.R. No.)				Telephone Numbers	
City, Town, Village		Province	Postal Code	Home:	
Position:		Dates Position Held			
		From: To:			
Surname		Given Name(s)		Occupation / Profession	
Residence Address — Street Number and Name (Apt. No., R.R. No.)				Telephone Numbers	
City, Town, Village		Province	Postal Code	Home:	
Position:		Dates Position Held			
		From: To:			
Surname		Given Name(s)		Occupation / Profession	
Residence Address — Street Number and Name (Apt. No., R.R. No.)				Telephone Numbers	
City, Town, Village		Province	Postal Code	Home:	
Position:		Dates Position Held			
		From: To:			
Surname		Given Name(s)		Occupation / Profession	
Residence Address — Street Number and Name (Apt. No., R.R. No.)				Telephone Numbers	
City, Town, Village		Province	Postal Code	Home:	
Position:		Dates Position Held			
		From: To:			
Surname		Given Name(s)		Occupation / Profession	
Residence Address — Street Number and Name (Apt. No., R.R. No.)				Telephone Numbers	
City, Town, Village		Province	Postal Code	Home:	
Position:		Dates Position Held			
		From: To:			

(4142)C (86-04)

O. Reg. 528/86, s. 4, part.

Dated at Toronto, this 2nd day of September, 1986.

ROBERT NIXON
Minister of Revenue

PLANNING ACT, 1983

O. Reg. 529/86.

Restricted Areas—County of Simcoe,

Township of Nottawasaga.

Made—August 28th, 1986.

Filed—September 3rd, 1986.

**REGULATION TO AMEND
REGULATION 675 OF
REVISED REGULATIONS
OF ONTARIO, 1970
MADE UNDER THE
PLANNING ACT, 1983**

- 1. Regulation 675 of Revised Regulations of Ontario, 1970 is amended by adding thereto the following section:**

241.—(1) Notwithstanding any other provision of this Order, a single-family dwelling and buildings and structures accessory thereto may be erected and used on the land described in subsection (2) if the following requirements are met:

Minimum front yard	7.6 metres
Minimum side yards	3 metres on one side and 1.2 metres on the other side
Maximum height of single-family dwelling	9.1 metres
Minimum ground floor area of single-family dwelling	one storey—93 square metres one and one-half storeys or more—69.8 square metres

(2) Subsection (1) applies to that parcel of land in the Township of Nottawasaga in the County of Simcoe, being that part of Lot 37 in Concession IX described as Part 1 on a Plan deposited in the Land Registry Office for the Registry Division of Simcoe (No. 51) as Number 51R-14735. O. Reg. 529/86, s. 1.

L. J. FINCHAM
Director

*Plans Administration Branch
Central and Southwest
Ministry of Municipal Affairs*

Dated at Toronto, this 28th day of August, 1986.

(9339)

38

PLANNING ACT, 1983

O. Reg. 530/86.

Order Made Under Section 30 of the Planning Act (now Section 56 of the Planning Act, 1983).

Made—August 27th, 1986.

Filed—September 3rd, 1986.

**REGULATION TO AMEND
ONTARIO REGULATION 391/81
MADE UNDER THE
PLANNING ACT, 1983**

- 1. Section 1 of Ontario Regulation 391/81 is amended by inserting after "being" in the thirteenth line "part of".**

L. J. FINCHAM

Director

Plans Administration Branch

Central and Southwest

Ministry of Municipal Affairs

Dated at Toronto, this 27th day of August, 1986.

(9340)

38

**BOILERS AND PRESSURE
VESSELS ACT**

O. Reg. 531/86.

General.

Made—August 28th, 1986.

Filed—September 3rd, 1986.

**REGULATION TO AMEND
REGULATION 84 OF
REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
BOILERS AND PRESSURE
VESSELS ACT**

- 1. Table 4 of Regulation 84 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 640/83, is revoked and the following substituted therefor:**

TABLE 4

TARIFF OF FEES

- 1. For a certificate of competency, the fee is,**

i. by an applicant for examination .. \$ 31.50

- | | |
|---|---|
| <p>ii. on the issue or renewal of a certificate \$ 19</p> <p>iii. for late application 25</p> <p>2. On examination and registration of the design of a boiler or of a heat-exchanger, except for pressure piping referred to in paragraph 6, where the area of the heating surface is less than 100 square feet, the fee is,</p> <p>i. \$25, and</p> <p>ii. for each 100 square feet or fraction thereof exceeding 100 square feet, an additional \$3 the fee not to exceed \$500.</p> <p>3. Where the boiler or heat-exchanger is classified as a nuclear vessel, the fee set out in paragraph 2 shall be multiplied by,</p> <p>i. 3, for a Class 1 nuclear vessel,</p> <p>ii. 2.5, for a Class 2 nuclear vessel, and</p> <p>iii. 2, for a Class 3 nuclear vessel.</p> <p>4. On examination and registration of the design of a pressure vessel other than a heat-exchanger, except for pressure piping referred to in paragraph 6, where the product of the diameter or the width of the pressure vessel in feet multiplied by its length-over-heads in feet is 30 or less,</p> <p>i. \$25, and</p> <p>ii. for each additional square foot, or fraction thereof exceeding 30 square feet, an additional \$3 the fee not to exceed \$380.</p> <p>5. Where the pressure vessel is classified as a nuclear vessel, the fee set out in paragraph 4 shall be multiplied by,</p> <p>i. 3, for a Class 1 nuclear vessel, or MC Components,</p> <p>ii. 2.5, for a Class 2 nuclear vessel, and</p> <p>iii. 2, for a Class 3 nuclear vessel.</p> <p>6. On examination and registration of any plant with respect to the design of the layout of the pressure piping, for each 500 linear feet or fraction thereof 25, the fee not to exceed \$1,250</p> | <p>7. The maximum fee for compressed air piping is \$125</p> <p>8. Where the plant is classified as a nuclear plant, the fees set out in paragraph 6 shall be multiplied by,</p> <p>i. 3, for a Class 1 nuclear plant,</p> <p>ii. 2.5, for a Class 2 nuclear plant, and</p> <p>iii. 2, for a Class 3 nuclear plant.</p> <p>9. On the registration of the design of fittings for each type, size and pressure .. 25</p> <p>10. For the collective registration of each category of fitting 63</p> <p>11. For the registration of each type, size and pressure of nuclear fittings the fee set out in paragraph 9 shall be multiplied by 2.</p> <p>12. For the collective registration of each category of nuclear fitting the fee set out in paragraph 10 shall be multiplied by 2.</p> <p>13. On examination and registration of a design of a refrigeration plant having a capacity of,</p> <p>i. less than 100 tons 50</p> <p>ii. 100 or more tons but less than 500 tons 63</p> <p>iii. 500 or more tons 82</p> <p>14. Fees payable for the examination of revisions to a previously registered design shall not exceed 25 per cent of the original registration fee.</p> <p>15. Fees payable for each set of extra copies of design marked "registered" 12.50</p> <p style="text-align: center;">INSPECTION OF OBJECTS DURING CONSTRUCTION, INSTALLATION OR MAKING OF MAJOR REPAIRS, AND OF USED BOILERS AND PRESSURE VESSELS</p> <p>16. On inspection during the construction of a boiler, pressure piping, a heat-exchanger, a pressure vessel or a refrigeration plant 53 per hour or part thereof</p> <p>17. On inspection during the installation of, or making repairs to a boiler, pressure piping, a heat-exchanger, a pressure vessel or a refrigeration plant 53 per hour or part thereof</p> |
|---|---|

18. On an inspection of a used boiler or pressure vessel \$53 per hour or part thereof
19. On inspection during installation of the direct expansion coils in a hockey rink, skating rink or curling rink 53 per hour or part thereof
20. On the issue of,
- i. a certificate of approval under section 16 of the Act 6.50
 - ii. a certificate of inspection under an inspection made under subsection 29 (2), (3) or (4) of the Act 31.50
 - iii. a duplicate certificate of inspection or approval 12.50

IN-SERVICE INSPECTIONS

21. Except for inspections referred to in paragraphs 16, 17 and 18, on an inspection of any boiler, where the area of the heating surface is,
- i. less than 100 square feet 25
 - ii. 100 or more square feet but less than 500 square feet 56.50
 - iii. 500 or more square feet but less than 1,000 square feet 69.50
 - iv. 1,000 or more square feet but less than 2,000 square feet 82
 - v. 2,000 or more square feet but less than 3,000 square feet 107
 - vi. 3,000 or more square feet 139
22. Except for inspections referred to in paragraphs 16, 17 and 18 and for groups of pressure vessels referred to in paragraph 23, on an inspection of a pressure vessel, other than a heat-exchanger, where the product of the measurement in feet of the diameter or width of the pressure vessel multiplied by its length-over-heads is,
- i. less than 10 7.50
 - ii. 10 or more but less than 30 22.50
 - iii. 30 or more but less than 50 38
 - iv. 50 or more but less than 70 50

v. 70 or more \$ 65.50

23. Except for inspections referred to in paragraphs 16, 17 and 18, on an inspection of a group of pressure vessels operating or used as a single machine or unit 63
24. Except for inspections referred to in paragraphs 16, 17 and 18, on an inspection of a heat-exchanger, where the area of the heating surface is,
- i. less than 500 square feet 19
 - ii. 500 or more square feet but less than 1,000 square feet 25
 - iii. 1,000 or more square feet but less than 2,000 square feet 31.50
 - iv. 2,000 or more square feet but less than 3,000 square feet 38
 - v. 3,000 or more square feet 50

TESTS OF WELDING OPERATORS

25. On,
- i. the test of a welding operator 27.50
 - ii. the issue of a welder's identification card, where the test has not been witnessed by an inspector 15
 - iii. the issue of a replacement identification card 12.50

APPROVAL OF WELDING PROCEDURES

26. On the approval of procedures to be followed in the welding of boilers or pressure vessels, for each procedure 44

QUALITY ASSURANCE REVIEWS, AUDITS OR SURVEYS

27. On any survey or audit of a manufacturer's facilities, where requested by the manufacturer or where required by regulation or code, per person 570
28. On any consultation by request with Ministry staff for the purpose of discussing or reviewing quality assurance manuals or procedures or advising thereon, per person 53 per hour or part thereof

O. Reg. 531/86, s. 1.

(9341)

38

OPERATING ENGINEERS ACT

O. Reg. 532/86.
General.
Made—August 28th, 1986.
Filed—September 3rd, 1986.

REGULATION TO AMEND
REGULATION 740 OF
REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
OPERATING ENGINEERS ACT

1. The Schedule to Regulation 740 of Revised Regulations of Ontario, 1980, as remade by section 5 of Ontario Regulation 639/83, is revoked and the following substituted therefor:

Schedule

PRESCRIBED FEES

Item No.	Subject	Fee \$
REGISTRATION OF PLANTS		
1.	On the issue of a certificate of registration of a plant	38
2.	On the issue of a certificate of registration of a plant in accordance with a change in classification	38
3.	On the issue of a certificate of registration to a new user of a plant	38
4.	On the issue of a certificate of registration of a guarded plant or a dual control boiler	75
5.	On the issue of a certificate of registration to a new user of a guarded plant or a dual control boiler	63
6.	On the issue of a duplicate of a certificate of registration	31.50
7.	For sealing a boiler or a compressor affecting change in classification	63
8.	For resealing a boiler or compressor, as necessary	63

Item No.	Subject	Fee \$
PROVISIONAL CERTIFICATES OF QUALIFICATION		
9.	For a provisional certificate of qualification as a stationary engineer (fourth, third or second class)	31.50
CERTIFICATES OF QUALIFICATION		
10.	Initial issue of a certificate of qualification to an operating engineer or operator	25
11.	On the reclassification of a certificate of qualification	12
12.	On the renewal of a certificate of qualification (two years)	24
13.	On the issue of a duplicate certificate of qualification, a wallet certificate, a validating seal or the reissue of a certificate of qualification in the case of a legal change of name	12
14.	On the reinstatement of a certificate of qualification, (a) where less than twelve months has elapsed since the date of its expiry	12
	(b) where twelve or more months have elapsed since the date of its expiry, \$12 plus \$6 for each subsequent year the certificate was not renewed, up to a maximum of five years.	
EXAMINATIONS AND RE-EXAMINATIONS		
15.	On examination for a certificate of qualification as a, (a) refrigeration operator (any class)	12
	(b) compressor operator	12
16.	On re-examination for a certificate of qualification as a, (a) refrigeration operator	12
	(b) compressor operator	12

Item No.	Subject	Fee \$
TRAINING PROFILE		
17.	On registering in a course comprising the training profile required to be completed for a class of certificate as a stationary engineer (fourth, third, second or first class) ...	6.50
18.	On trying an examination in each module that is part of the training profile required to be completed for a certificate of qualification as a stationary engineer (fourth, third, second or first class)	5

O. Reg. 532/86, s. 1.

2. This Regulation comes into force on the 1st day of November, 1986.

(9342)

38

PUBLIC SERVICE ACT

O. Reg. 533/86.

General.

Made—July 3rd, 1986.

Approved—August 28th, 1986.

Filed—September 4th, 1986.

REGULATION TO AMEND
REGULATION 881 OF
REVISED REGULATIONS OF
ONTARIO, 1980
MADE UNDER THE
PUBLIC SERVICE ACT

1. The definition of “continuous service” in subsection 62 (1) of Regulation 881 of Revised Regulations of Ontario, 1980, as made by section 10 of Ontario Regulation 24/86, is revoked and the following substituted therefor:

“continuous service” means the total period of unbroken service of a civil servant excluding,

- (a) for all purposes, including severance pay,
- (i) leaves of absence without pay of greater than thirty days except for leaves for maternity and adoption purposes, and

- (ii) absences that constitute a hiatus in service, and

- (b) for the purposes of severance pay,

- (i) absences for which an employee is approved for benefits under the Long Term Income Protection Plan and receives a Worker's Compensation Award which is not supplemented by accumulated credits and whose pension contributions are being maintained by the employer, and

- (ii) absences for which an employee receives benefits under the Long Term Income Protection Plan,

but including any period of unbroken service in the public service immediately before last appointment as a civil servant;

Dated at Toronto, this 3rd day of July, 1986.

CIVIL SERVICE COMMISSION:

D. A. CROSBIE
Chairman

(9364)

38

PARKWAY BELT PLANNING AND
DEVELOPMENT ACT

O. Reg. 534/86.

The Regional Municipality of York,
Town of Markham.

Made—September 3rd, 1986.

Filed—September 4th, 1986.

REGULATION TO AMEND
ONTARIO REGULATION 473/73
MADE UNDER THE
PARKWAY BELT PLANNING AND
DEVELOPMENT ACT

1. Subsection 15 (2) of Ontario Regulation 473/73, as remade by section 1 of Ontario Regulation 639/85, is revoked.
2. Subsection 15 (5) of the said Regulation, as made by section 1 of Ontario Regulation 639/85, is revoked and the following substituted therefor:

(5) This section applies to that parcel of land in the Town of Markham in The Regional Municipality of York, being that part of Lot 9 in Concession VI described as parts 17 and 21 on a Plan registered in the Land Registry Office for the Registry Division of Toronto Boroughs (No. 64) as Number 64R-7974. O. Reg. 534/86, s. 2.

3. The said Regulation is amended by adding thereto the following section:

74.—(1) In this section, “floor area ratio” means the gross floor area of all buildings on the lands expressed as a percentage of the total area of the lands.

(2) The lands described in subsection (3) may be used for the purpose of selling and servicing automobiles and a building or buildings may be erected thereon for such purpose if the following requirements are met:

Maximum number of buildings	2
Minimum distance of any building from the lot line abutting Kennedy Road	12 metres
Minimum distance of any building from the lot line abutting Unionville By-Pass	12 metres
Minimum distance of any building from the lot line abutting Unionville Gateway	12 metres
Minimum distance of any building from the southerly lot line	6 metres
Minimum distance of any building from the easterly lot line	6 metres
Maximum height of building	9.5 metres
Maximum floor area ratio	30 per cent

Parking:

Minimum number of parking spaces	1 space for each 30 square metres of gross floor area
Minimum width of each parking space	2.75 metres
Minimum area of each parking space exclusive of aisle or driveway	16.2 square metres

Off-street loading space:

Gross floor area of 1,860 square metres or less	one loading space
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Gross floor area greater than 1,860 square metres	two loading spaces
Minimum width of each loading space	3.6 metres
Minimum length of each loading space	12 metres
Minimum height clearance	4.2 metres

(3) This section applies to the lands described as follows:

All that parcel of land in the Town of Markham in The Regional Municipality of York, formerly in the Township of Markham in the County of York, and being part of Lot 1 according to a Plan registered in the Land Registry Office for the Registry Division of Toronto Boroughs (No. 64) as Number 2196 and being composed of the following parcels of land:

1. Beginning at a point in the east limit of Kennedy Road, said point being also in the westerly limit of the said Lot 1, 544 feet, 8½ inches northerly from the southwest angle of the said Lot 1;

Thence northerly along the westerly limit of Lot 1, 420 feet, 4½ inches, more or less, to the northwest angle of Lot 1;

Thence easterly along the northerly limit of Lot 1, 209 feet, 6 inches to a point;

Thence southerly parallel to the westerly limit of Lot 1, 420 feet, 6 inches to a point;

Thence westerly parallel to the northerly limit of Lot 1, 209 feet, 6 inches to the place of beginning;

Excepting therefrom that portion of Lot 1 designated as Part 12 on an Expropriation Plan registered as Number 8527 in the said Land Registry Office.
2. Beginning at a point 544 feet, 8 inches measured northerly from the southerly limit of Lot 1 on a line parallel to and distant 209 feet, 6 inches east of the westerly limit of the said Lot, measured on the southerly limit of the said Lot;

Thence easterly parallel to the southerly limit of the said Lot, 222 feet, 2 inches;

Thence northerly parallel to the westerly limit of the said Lot, 420 feet, 10 inches, more or less, to the northerly limit of the said Lot;

Thence westerly along the said limit 222 feet, 2 inches to a point distant 209 feet, 6 inches measured easterly along the said northerly limit from the westerly limit thereof;

Thence southerly along the first-mentioned parallel line 420 feet, 7½ inches, more or less, to the place of beginning. O. Reg. 534/86, s. 3.

L. J. FINCHAM
Director

*Plans Administration Branch
Central and Southwest
Ministry of Municipal Affairs*

Dated at Toronto, this 3rd day of September, 1986.

(9365)

38

PLANNING ACT, 1983

O. Reg. 535/86.

Restricted Areas—County of Ontario
(now The Regional Municipality of
Durham), Township of Pickering
(now the Town of Pickering).

Made—August 29th, 1986.

Filed—September 4th, 1986.

REGULATION TO AMEND ONTARIO REGULATION 102/72 MADE UNDER THE PLANNING ACT, 1983

1. Ontario Regulation 102/72 is amended by adding thereto the following section:

62.—(1) A single-family dwelling and buildings and structures accessory thereto may be erected and used on each of the lands described in subsections (2), (3) and (4) if the following requirements are met:

Minimum front yard	9 metres
Minimum side yards	2.4 metres
Minimum rear yard	9 metres
Minimum floor area of single-family dwelling	95 square metres
Maximum lot coverage	20 per cent

(2) Subsection (1) applies to that parcel of land in the Town of Pickering in The Regional Municipality of Durham, being part of Lot 10 in Concession V described as Part 1 on a Plan deposited in the Land Registry Office for the Registry Division of Durham (No. 40) as Number 40R-9526.

(3) Subsection (1) applies to that parcel of land in the Town of Pickering in The Regional Municipality of Durham, being part of Lot 10 in Concession V described as Part 2 on a Plan deposited in the Land Registry Office for the Registry Division of Durham (No. 40) as Number 40R-9526.

(4) Subsection (1) applies to that parcel of land in the Town of Pickering in The Regional Municipality of Durham, being part of Lot 10 in Concession V described as Part 3 on a Plan deposited in the Land Registry Office for the Registry Division of Durham (No. 40) as Number 40R-9526. O. Reg. 535/86, s. 1.

L. J. FINCHAM
Director

*Plans Administration Branch
Central and Southwest
Ministry of Municipal Affairs*

Dated at Toronto, this 29th day of August, 1986.

(9367)

38

PLANNING ACT, 1983

O. Reg. 536/86.

Restricted Areas—District of Manitoulin, Geographic townships of Campbell, Dawson, Mills and Robinson.

Made—September 2nd, 1986.

Filed—September 4th, 1986.

REGULATION TO AMEND ONTARIO REGULATION 672/81 MADE UNDER THE PLANNING ACT, 1983

1. Ontario Regulation 672/81 is amended by adding thereto the following section:

76.—(1) Despite subsection 47 (1), the two single-family dwellings in existence as of February 26, 1986 on the land described in subsection (2) may continue to be used if the following requirements are met:

Minimum lot area	10 hectares
Minimum lot frontage	30 metres
Minimum distance of any building or structure from a lot line	15 metres
Minimum ground floor area for each single- family dwelling	55 square metres

(2) Subsection (1) applies to Lot 17, Concession VI, in the geographic Township of Mills in the Territorial District of Manitoulin. O. Reg. 536/86, s. 1.

PAULINE MORRIS

*Director**Plans Administration Branch**North and East**Ministry of Municipal Affairs*

Dated at Toronto, this 2nd day of September, 1986.

(9367)

38

PLANNING ACT, 1983

O. Reg. 537/86.

Restricted Areas—District of Manitoulin,
Geographic townships of Campbell,
Dawson, Mills and Robinson.

Made—August 11th, 1986.

Filed—September 4th, 1986.

**REGULATION TO AMEND
ONTARIO REGULATION 672/81
MADE UNDER THE
PLANNING ACT, 1983**

1. Section 1 of Ontario Regulation 672/81 is amended by adding thereto the following paragraph:

22a. "mobile home" means a dwelling unit that is designed to be made mobile and constructed or manufactured as a permanent residence but does not include a recreational vehicle, travel trailer, tent trailer or other trailer;

2. The said Regulation is amended by adding thereto the following section:

77.—(1) Notwithstanding section 13, one mobile home may be located and used on the land described in subsection (2) if the mobile home is used only,

(a) as seasonal accommodation for staff employed in the existing commercial uses; or

(b) as seasonal rental accommodation,

and if the following requirements are met:

Minimum lot area	1,858	square metres
Minimum lot frontage	30	metres
Maximum lot coverage	50	per cent
Minimum front yard	15	metres
Minimum side yards	4.5	metres
Minimum rear yard	7.5	metres
Maximum height	9	metres

(2) Subsection (1) applies to that parcel of land in the geographic Township of Mills in the Territorial District of Manitoulin, being part of lots 24 and 25, Concession I, described as parts 2 and 3 on a Plan deposited in the Land Registry Office for the Registry Division of Manitoulin (No. 31) as Number 31R-475. O. Reg. 537/86, s. 2.

PAULINE MORRIS

*Director**Plans Administration Branch**North and East**Ministry of Municipal Affairs*

Dated at Toronto, this 11th day of August, 1986.

(9368)

38

**MINISTRY OF AGRICULTURE
AND FOOD ACT**

O. Reg. 538/86.

Farm Tax Reduction Program.

Made—June 20th, 1986.

Filed—September 4th, 1986.

**AN ORDER TO REVOKE
ONTARIO REGULATION 716/83
MADE UNDER THE
MINISTRY OF AGRICULTURE
AND FOOD ACT**

1. Ontario Regulation 716/83 is revoked.

(9369)

38

TOBACCO TAX ACT

O. Reg. 539/86.

General.

Made—August 28th, 1986.

Filed—September 4th, 1986.

**REGULATION TO AMEND
REGULATION 934 OF
REVISED REGULATIONS
OF ONTARIO, 1980
MADE UNDER THE
TOBACCO TAX ACT**

1.—(1) Item 17 of section 2 of Regulation 934 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 743/84, is revoked and the following substituted therefor:

17. J.K. Brown Investments Inc. carrying on business as Brown and Lepage (Sudbury).

- (2) Items 44, 71 and 124 of the said section 2 are revoked.

(9370)

38

TOBACCO TAX ACT

O. Reg. 540/86.

General.

Made—August 28th, 1986.

Filed—September 4th, 1986.

REGULATION TO AMEND REGULATION 934 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE TOBACCO TAX ACT

1. Item 9 of section 2 of Regulation 934 of Revised Regulations of Ontario, 1980, as made by subsection 1 (1) of Ontario Regulation 300/86, is revoked.
2. This Regulation shall be deemed to have come into force on the 15th day of August, 1986.

(9371)

38

CROP INSURANCE ACT (ONTARIO)

O. Reg. 541/86.

Crop Insurance Plan—Onions.

Made—July 11th, 1986.

Approved—August 13th, 1986.

Filed—September 5th, 1986.

REGULATION MADE UNDER THE CROP INSURANCE ACT (ONTARIO)

CROP INSURANCE PLAN—ONIONS

1. The plan in the Schedule is established for the insurance within Ontario of onions. O. Reg. 541/86, s. 1.

2. Regulation 213 of Revised Regulations of Ontario, 1980 and Ontario Regulations 287/81, 220/82, 750/82, 265/83, 460/84 and 304/85 are revoked.

3. Regulation 214 of Revised Regulations of Ontario, 1980 and Ontario Regulations 286/81, 221/82, 751/82, 264/83 and 361/84 are revoked.

4. Ontario Regulations 316/81, 222/82, 752/82, 267/83 and 360/84 are revoked.

Schedule

Crop Insurance Act (Ontario)

PLAN

1. The title of this plan is the "Ontario Crop Insurance Plan—Onions".

2. The purpose of this plan is to provide for insurance against a loss in the production of onions resulting from one or more of the perils designated in section 4.

3. In this plan,

"average farm yield" means the average of previous yields of the planted acreage computed on the basis of acreage production records of the insured person or on such other basis as is reasonable in the circumstances;

"bag" means fifty pounds; and

"onions" means onions grown from seed, onions grown from sets or spanish onions.

DESIGNATION OF PERILS

4.—(1) Subject to subsections (2) and (3), the following are designated as perils for the purposes of this plan:

1. Drought.
2. Excessive rainfall.
3. Flood.
4. Frost.
5. Hail.
6. Insect infestation.
7. Plant disease.
8. Wildlife.
9. Wind.

(2) This plan does not insure against a loss in the production of spanish onions in a crop year resulting from drought.

(3) This plan does not insure against a loss in the production of onions in a crop year resulting from insect infestation or plant disease unless the insured person establishes that a recommended control program was followed during the crop year.

5. The crop year for onions is the period from the 1st day of March in any year to the 31st day of October next following.

CONTRACT OF INSURANCE

6.—(1) For the purposes of this plan, the entire contract of insurance for onions is comprised of,

- (a) the contract of insurance in the form prescribed by Regulation 231 of Revised Regulations of Ontario, 1980;
- (b) the application for insurance;
- (c) an endorsement for onions in Form 1;
- (d) the final acreage report for each crop year; and
- (e) any amendment to a document referred to in clause (b) or (d) agreed upon in writing.

(2) In the event of a conflict between the provisions referred to in clauses (1) (a) and (c), the provisions referred to in clause (1) (c) prevail.

7.—(1) An application for insurance shall,

- (a) be in a form provided by the Commission;
- (b) be accompanied by a minimum premium deposit of \$100 for each crop in respect of which insurance is applied for; and
- (c) be filed with the Commission,
 - (i) not later than the 1st day of April, or
 - (ii) in the case of onions grown from seed to be planted east of King's Highway No. 6, not later than the 15th day of April,

in the crop year in respect of which it is made.

(2) Premium deposits prescribed by clause (1) (b) are not refundable unless no acreage is planted to the crop.

DURATION OF CONTRACT

8.—(1) A contract of insurance is in force for the crop year in respect of which it is made, and continues in force for each crop year thereafter until cancelled by the insured person or the Commission in the manner prescribed by subsection (2) or terminated in accordance with the regulations.

(2) A contract of insurance may be cancelled by the insured person or the Commission by notice in writing to the other party on or before the 1st day of April in the crop year during which the cancellation is to be effective.

COVERAGE

9.—(1) Subject to subsections (2), (3) and (4), the coverage provided under a contract of insurance is 70 per cent of the average farm yield in bags of the total

acreage planted to the crop by the insured person in accordance with the regulations.

(2) The coverage provided under subsection (1) shall be increased following each consecutive no claim year as follows:

- 1. Following the first no claim year to 73 per cent of the average farm yield.
- 2. Following the second no claim year to 76 per cent of the average farm yield.
- 3. Following the third no claim year to 78 per cent of the average farm yield.
- 4. Following the fourth no claim year to a maximum of 80 per cent of the average farm yield.

(3) The coverage provided under subsections (1) and (2) shall be decreased for claim years from the insured level in reverse progression to that prescribed by subsection (2) except, where a claim occurs in a year where the coverage is 70 per cent, the coverage shall be reduced to 65 per cent.

(4) Where, in any year, a claim is paid in an amount less than one-half the total premium for that year, the coverage for the following year remains unchanged.

(5) The number of bags determined under subsections (1), (2) and (3) constitutes the total guaranteed production under a contract of insurance.

10. For the purposes of this plan, the established price for,

- (a) onions grown from seed is \$2.75 per bag;
- (b) onions grown from sets is \$3.50 per bag; and
- (c) spanish onions is \$4.50 per bag.

PREMIUMS

11.—(1) The total premium for,

- (a) onions grown from seed is \$130 per acre;
- (b) onions grown from sets is \$100 per acre; and
- (c) spanish onions is \$250 per acre.

(2) Notwithstanding subsection (1), the minimum premium payable by an insured person in each crop year is \$100 for each crop.

(3) The premium prescribed by subsection (1) includes payments in respect of premiums made by the Government of Canada under the *Crop Insurance Act* (Canada).

12.—(1) Where a contract of insurance is in force, a premium shall be paid in respect of each crop year in which the insured person plants acreage to onions.

(2) Where a premium is payable in respect of a crop year, the insured person shall pay the premium, less the premium deposit prescribed by subsection (3), to the Commission at the time the final acreage report prescribed by section 13 is filed.

(3) Where a renewal premium is payable in respect of a crop year, the insured person shall, not later than the 1st day of April in the crop year, pay a premium deposit in accordance with clause 7 (1) (b).

FINAL ACREAGE REPORT

13.—(1) Every insured person shall file with the Commission in each crop year a final acreage report in a form provided by the Commission as soon as the planting of acreage to the crop is completed.

(2) A final acreage report filed with the Commission shall not be amended without the written consent of the Commission.

14.—(1) When the final acreage report is inaccurate, the Commission may correct it and adjust the premium accordingly and, in such case, shall notify the insured person in writing forthwith of the correction and the reason therefor.

(2) The insured person shall be deemed to have agreed with the correction of the final acreage report and adjustment of premium made under subsection (1) unless, within ten days after the mailing or delivery of the notification by the Commission, that person notifies the Commission in writing that the correction is not acceptable.

(3) Upon notice that a correction is not acceptable being given, the contract of insurance ceases to apply for the crop year in respect of which the final acreage report was filed.

(4) A final acreage report revised under this section shall, failing notice under subsection (2), constitute the final acreage report for the crop year.

15.—(1) Where an insured person in any crop year fails to file a final acreage report in the form and manner prescribed by this Regulation, the Commission may,

(a) prepare the final acreage report; or

(b) declare the insured acreage to be nil.

(2) Where the Commission prepares a final acreage report under subsection (1), the Commission shall mail or deliver a copy of the report to the insured person.

(3) Every insured person shall pay the premium for the crop year in respect of which a final acreage report

is prepared by the Commission within ten days after the mailing or delivery to that person of a copy of the report.

FINAL DATE FOR PLANTING

16. For the purposes of this plan, in any particular crop year the final date for planting,

(a) onions grown from seed is the 31st day of May;

(b) onions grown from sets is the 15th day of May; and

(c) spanish onions is the 20th day of May,

or such other dates as are reasonably warranted in the circumstances.

FINAL DATE FOR HARVESTING

17. For the purposes of this plan, in any particular crop year the final date for harvesting,

(a) onions grown from seed or spanish onions is the 31st day of October; and

(b) onions grown from sets is the 15th day of August,

or such other dates as are reasonably warranted in the circumstances. O. Reg. 541/86, Sched.

Form 1

Crop Insurance Act (Ontario)

ONION ENDORSEMENT

WHEREAS the insured person has applied for crop insurance under the Ontario Crop Insurance Plan for Onions, hereinafter referred to as "the plan", and has paid the deposit premium prescribed thereunder;

NOW THEREFORE, subject to the *Crop Insurance Act (Ontario)* and the regulations made thereunder, the contract of insurance between The Crop Insurance Commission of Ontario and the insured person is hereby extended to cover onions.

HARVESTING OF PLANTED ACREAGE

1. All acreage planted to onions in a crop year shall be harvested unless the Commission, upon application therefor in writing, consents in writing to,

(a) the use of the planted acreage or any part thereof for another purpose; or

(b) the abandonment or destruction of the insured crop or any part thereof.

EVALUATION OF LOSS

2.—(1) Where,

- (a) all the acres intended to be planted to spring grown crops are offered for insurance;
- (b) the insured person so elects on the application for insurance and pays the premium deposit required by the regulations for each spring grown crop intended to be planted; and
- (c) the planting,
 - (i) in the case of systematically tile drained land, of three acres or more, or
 - (ii) in the case of land that is not systematically tile drained, of six acres or more,

is prevented by one or more of the designated perils,

an indemnity shall be paid,

- (d) in the case of systematically tile drained land, for each acre; or
- (e) in the case of land that is not systematically tile drained, for each acre in excess of three,

that remains unplanted, the amount of which shall be equal to one-third of the guaranteed production per acre of the crop highest in priority on the list in the Table to this Regulation of those intended to be planted and insured by the insured person multiplied by the established price applicable to that crop.

(2) This paragraph does not apply to and no indemnity is payable in respect of land,

- (a) that is orchard land, pasture, woodland, seeded to a perennial crop, fall sown or intended for summer fallow;
- (b) that is untilled and was not cropped in the previous year; or
- (c) that, in the opinion of the Commission, is not insurable.

(3) Where the planting is prevented by excessive rainfall, no indemnity is payable unless the insured person establishes that,

- (a) an abnormal amount of rain occurred;
- (b) the rainfall resulted in a reduced number of work days; and
- (c) a significant number of other insured persons were similarly affected,

during the planting season in the area where the insured acreage is situate.

3.—(1) Where loss or damage to one acre or more of the insured crop resulting from an insured peril occurs prior to the final date for planting in the crop year, the Commission, upon application therefor in writing by the insured person, may consent in writing to the replanting of the damaged acreage.

(2) Where the damaged acreage is replanted to the insured crop in accordance with subparagraph (1), the Commission shall pay an indemnity for each acre replanted,

- (a) in the case of onions grown from seed, of \$350;
- (b) in the case of onions grown from sets, of \$380; and
- (c) in the case of spanish onions, of \$500 where 44,000 or more plants are replanted per acre or that portion of \$500 that the number of plants replanted bears to 44,000 where fewer than 44,000 plants are replanted per acre,

and the contract of insurance continues to apply to such acreage.

(3) The total number of acres of a crop in respect of which a replanting benefit is paid in a crop year shall not in any case exceed the total number of insured acres planted to that crop.

4.—(1) Where loss or damage occurs prior to harvest, the Commission, upon application therefor in writing by the insured person, may consent in writing to the use of the damaged acreage for any other purpose or to the abandonment or destruction of the insured crop on such damaged acreage and in such case shall determine the number of damaged acres and the potential production thereof.

(2) Where damaged acreage is used for any other purpose or the insured crop thereon is abandoned or destroyed in accordance with subparagraph (1), the amount of loss that shall be taken into account in the final adjustment of loss in respect of the total planted acreage shall be calculated by multiplying the difference between the guaranteed production for the damaged acreage and the potential production for the damaged acreage determined under subparagraph (1) by the established price per bag for that crop.

(3) Where damaged acreage is not used for any other purpose or the crop thereon is not abandoned or destroyed after the Commission has consented thereto, the amount of loss calculated under paragraph (2) shall not be taken into account in the final adjustment of loss.

(4) Where the actual production of the harvested acreage is less than the guaranteed production for such acreage, the amount of loss that shall be taken into

account in the final adjustment of loss in respect of the total seeded acreage of a crop shall be calculated by multiplying the difference between the guaranteed production and the actual production by the established price per bag for that crop.

NOTICE OF LOSS OR DAMAGE

5. Where loss or damage to an insured crop occurs and the damage was occasioned at a readily ascertainable time, the insured person shall notify the Commission forthwith by telephone and shall confirm in writing within twenty-four hours after that time.

FINAL ADJUSTMENT OF LOSS FOR
TOTAL PLANTED ACREAGE

6.—(1) The indemnity payable with respect to the total planted acreage of a crop in the final adjustment of loss is the sum of the losses calculated under paragraphs 2, 3 and 4 applicable to the acreage but, subject to subparagraph (2), where,

- (a) the actual production of any harvested acreage; or
- (b) the potential production of any unharvested acreage,

exceeds the guaranteed production of the acreage, the indemnity otherwise payable shall be reduced by the amount obtained by multiplying such excess by the established price per bag.

(2) Notwithstanding subparagraph (1), no indemnity paid under paragraphs 2 and 3 is subject to reduction under this paragraph.

(3) In no case shall indemnity be paid for acreage in excess of the total insured acreage of a crop.

(4) Where, as the result of an insured peril, the quality of a crop is reduced, the actual production of any onions sold at a grade below Canada No. 1 shall be deemed to be reduced by 60 per cent.

DAMAGE AFTER HARVEST

7.—(1) No indemnity is payable in respect of any loss or damage suffered by the insured crop after harvest and, subject to subparagraph (2), no indemnity is payable with respect to onions in storage.

(2) Where an insured crop damaged by an insured peril prior to harvest is placed in storage, the Commission shall thereupon adjust the loss and pay an indemnity therefor if,

- (a) notice of damage was received and inspection was made by the Commission before harvest; and

- (b) the damaged onions are clearly indentified in storage.

INCORRECT ACREAGE IN FINAL ACREAGE REPORT

8.—(1) Where the actual acreage of a crop in a crop year is less than the planted acreage declared on the final report for that crop, the total guaranteed production and the amount of insurance shall be reduced proportionately and there shall be no refund of premium.

(2) Where the actual planted acreage of a crop in a crop year exceeds the planted acreage declared on the final acreage report, the production from the total planted acreage shall be counted and there shall be no increase in the total guaranteed production or the maximum amount of indemnity payable.

IN WITNESS WHEREOF The Crop Insurance Commission of Ontario has caused this endorsement to be signed by its general manager but the same shall not be binding upon the Commission until countersigned by a duly authorized representative thereof.

Countersigned and dated at, this day of, 19....

.....
Duly Authorized General Manager
Representative

O. Reg. 541/86, Form 1.

TABLE

Crop in Order of Priority
1. Onions grown from seed.
2. Onions grown from sets.
3. Spanish onions.

O. Reg. 541/86, Table.

THE CROP INSURANCE COMMISSION
OF ONTARIO:

MORRIS HUFF
Chairman

J. MULDER
Secretary

Dated at Toronto, this 11th day of July, 1986.

(9372)

38

GASOLINE TAX ACT

O. Reg. 542/86.

General.

Made—September 2nd, 1986.

Filed—September 5th, 1986.

**REGULATION TO AMEND
REGULATION 440 OF REVISED REGULATIONS OF ONTARIO, 1980
MADE UNDER THE
GASOLINE TAX ACT**

1. Form 1 of Regulation 440 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 648/84, is revoked and the following substituted therefor:

Form 1

Gasoline Tax Act

Ministry
of
Revenue
Ontario

Notice of Objection

INSTRUCTIONS: Please print or type.

To be prepared in TRIPLICATE, ONE copy to be retained and TWO copies to be sent by REGISTERED MAIL addressed to the Ministry of Revenue, Tax Appeals Branch, P.O. Box 627, 33 King Street West, Oshawa, Ontario L1H 8H5.

The envelope containing this NOTICE OF OBJECTION must be postmarked within one hundred and eighty days after the day of mailing or delivery by personal service of the NOTICE OF ASSESSMENT or STATEMENT OF DISALLOWANCE OF REBATE/REFUND CLAIM to which objection is being made.

A separate NOTICE OF OBJECTION must be filed for each NOTICE OF ASSESSMENT or each STATEMENT OF DISALLOWANCE OF REBATE/REFUND CLAIM in dispute but, if convenient, facts and reasons may be consolidated.

Name of Taxpayer (CORPORATION, PURCHASER, REGISTRANT, VENDOR)		TELEPHONE NO.
Mailing Address		
CITY / TOWN	PROVINCE	POSTAL CODE

NOTICE OF OBJECTION is hereby given to the:

<input type="checkbox"/> Assessment No.	Date of Assessment YEAR MONTH DAY	Amount of Tax \$	for Period ending YEAR MONTH DAY
OR <input type="checkbox"/> Statement of Disallowance of Rebate/Refund Claim No.	Statement Date YEAR MONTH DAY	Rebate/Refund Amount \$	

under the following act (check one only and indicate account/permit number)

<input type="checkbox"/> CORPORATIONS TAX ACT	— Account Number	<table style="border: 1px solid black; width: 100%; height: 1.2em;"> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>											◀ Please indicate
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<input type="checkbox"/> RETAIL SALES TAX ACT	— Permit Number	<table style="border: 1px solid black; width: 100%; height: 1.2em;"> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>											◀ Please indicate
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The following are the reasons for objection and the relevant facts:

(If space is insufficient, a separate memorandum should be attached setting forth the full statement of reasons for objection and relevant facts.)

☐ Check here if additional sheets are attached

This NOTICE OF OBJECTION must be signed by the person objecting or the authorized signing officer of the company.

Date	Name (print)	Signature	Position or Office
Appointment of Representative			
This will confirm that _____			
has the authority to communicate on my/the company's behalf concerning this Notice of Objection.			
Date	Signature of the person objecting or the authorized signing officer of the company	Address of Representative	

1406 H (86-06)

O. Reg. 542/86, s. 1.

ROBERT NIXON
Minister of Revenue

Dated at Toronto, this 2nd day of September, 1986.

(9373)

38

RETAIL SALES TAX ACT

O. Reg. 543/86.

Definitions by Minister.

Made—September 2nd, 1986.

Filed—September 5th, 1986.

REGULATION TO AMEND REGULATION 903 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE RETAIL SALES TAX ACT

1. The form to subsection 11 (3) of Regulation 903 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 604/84, is revoked and the following substituted therefor:

Retail Sales Tax Act



Ministry
of
Revenue
Ontario

Notice of Objection

INSTRUCTIONS: Please print or type.

To be prepared in TRIPLICATE, ONE copy to be retained and TWO copies to be sent by REGISTERED MAIL addressed to the Ministry of Revenue, Tax Appeals Branch, P.O. Box 627, 33 King Street West, Oshawa, Ontario L1H 8H5.

The envelope containing this NOTICE OF OBJECTION must be postmarked within one hundred and eighty days after the day of mailing or delivery by personal service of the NOTICE OF ASSESSMENT or STATEMENT OF DISALLOWANCE OF REBATE/REFUND CLAIM to which objection is being made.

A separate NOTICE OF OBJECTION must be filed for each NOTICE OF ASSESSMENT or each STATEMENT OF DISALLOWANCE OF REBATE/REFUND CLAIM in dispute but, if convenient, facts and reasons may be consolidated.

Name of Taxpayer (CORPORATION, PURCHASER, REGISTRANT, VENDOR)	TELEPHONE NO.
Mailing Address	
STREET AND NUMBER	
CITY / TOWN	PROVINCE
	POSTAL CODE

NOTICE OF OBJECTION is hereby given to the:

<input type="checkbox"/>	Assessment No.	Date of Assessment	Amount of Tax	for Period ending
		YEAR MONTH DAY	\$	YEAR MONTH DAY
OR <input type="checkbox"/>	Statement of Disallowance	Statement Date	Rebate/Refund Amount	
	of Rebate/Refund Claim No. _____	YEAR MONTH DAY	\$	

under the following act (check one only and indicate account/permit number)

<input type="checkbox"/> CORPORATIONS TAX ACT	- Account Number	<table border="1"><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>											◀ Please indicate
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The following are the reasons for objection and the relevant facts.

(If space is insufficient, a separate memorandum should be attached setting forth the full statement of reasons for objection and relevant facts.)

☐ Check here if additional sheets are attached.

This NOTICE OF OBJECTION must be signed by the person objecting or the authorized signing officer of the company.

Date	Name (print)	Signature	Position or Office

Appointment of Representative

This will confirm that _____

has the authority to communicate on my/the company's behalf concerning this Notice of Objection.

Date	Signature of the person objecting or the authorized signing officer of the company	Address of Representative

1406 H (86 06)

ROBERT NIXON
Minister of Revenue

Dated at Toronto, this 2nd day of September, 1986.

TOBACCO TAX ACT

O. Reg. 544/86.

Forms.

Made—September 2nd, 1986.

Filed—September 5th, 1986.

**REGULATION TO AMEND
REGULATION 933 OF REVISED REGULATIONS OF ONTARIO, 1980
MADE UNDER THE
TOBACCO TAX ACT**

1. Form 1 of Regulation 933 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 605/84, is revoked and the following substituted therefor:

Form 1

Tobacco Tax Act

Ministry
of
Revenue
Ontario

Notice of Objection

INSTRUCTIONS: Please print or type.

To be prepared in TRIPLICATE, ONE copy to be retained and TWO copies to be sent by REGISTERED MAIL addressed to the Ministry of Revenue, Tax Appeals Branch, P.O. Box 627, 33 King Street West, Oshawa, Ontario L1H 8H5.

The envelope containing this NOTICE OF OBJECTION must be postmarked within one hundred and eighty days after the day of mailing or delivery by personal service of the NOTICE OF ASSESSMENT or STATEMENT OF DISALLOWANCE OF REBATE/REFUND CLAIM to which objection is being made.

A separate NOTICE OF OBJECTION must be filed for each NOTICE OF ASSESSMENT or each STATEMENT OF DISALLOWANCE OF REBATE/REFUND CLAIM in dispute but, if convenient, facts and reasons may be consolidated.

Name of Taxpayer (CORPORATION, PURCHASER, REGISTRANT, VENDOR)			TELEPHONE NO.
Mailing Address			
STREET AND NUMBER		CITY / TOWN	
Province		POSTAL CODE	

NOTICE OF OBJECTION is hereby given to the:

<input type="checkbox"/> OR <input type="checkbox"/>	Assessment No.	Date of Assessment	Amount of Tax	for Period ending
		YEAR MONTH DAY	\$	YEAR MONTH DAY
	Statement of Disallowance	Statement Date	Rebate/Refund Amount	
	of Rebate/Refund Claim No. _____	YEAR MONTH DAY	\$	

under the following act (check one only and indicate account/permit number)

<input type="checkbox"/> CORPORATIONS TAX ACT	— Account Number	[] [] [] [] [] [] [] [] [] []	◀ Please indicate
<input type="checkbox"/> GASOLINE TAX ACT	— Permit Number	[] [] [] [] [] [] [] [] [] []	
<input type="checkbox"/> LAND TRANSFER TAX ACT			
<input type="checkbox"/> RETAIL SALES TAX ACT	— Permit Number	[] [] [] [] [] [] [] [] [] []	◀ Please indicate
<input type="checkbox"/> TOBACCO TAX ACT	— Permit Number	[] [] [] [] [] [] [] [] [] []	
<input type="checkbox"/> FUEL TAX ACT, 1981	— Permit Number	[] [] [] [] [] [] [] [] [] []	

The following are the reasons for objection and the relevant facts:

(If space is insufficient, a separate memorandum should be attached setting forth the full statement of reasons for objection and relevant facts.)

☐ Check here if additional sheets are attached.

This NOTICE OF OBJECTION must be signed by the person objecting or the authorized signing officer of the company.

Date	Name (print)	Signature	Position or Office
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Appointment of Representative

This will confirm that _____
has the authority to communicate on my/the company's behalf concerning this Notice of Objection.

Date	Signature of the person objecting or the authorized signing officer of the company	Address of Representative
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1406 H (86-06)

O. Reg. 544/86, s. 1.

ROBERT NIXON
Minister of Revenue

Dated at Toronto, this 2nd day of September, 1986.

(9375)

38

LAND TRANSFER TAX ACT

O. Reg. 545/86.

Forms.

Made—September 2nd, 1986.

Filed—September 5th, 1986.

REGULATION TO AMEND REGULATION 566 OF REVISED REGULATIONS OF ONTARIO, 1980 MADE UNDER THE LAND TRANSFER TAX ACT

1. Form 1 of Regulation 566 of Revised Regulations of Ontario, 1980, as remade by section 1 of Ontario Regulation 603/84, is revoked and the following substituted therefor:

Form 1

Land Transfer Tax Act



Ministry
of
Revenue
Ontario

Notice of Objection

INSTRUCTIONS: Please print or type.

To be prepared in TRIPLICATE, ONE copy to be retained and TWO copies to be sent by REGISTERED MAIL addressed to the Ministry of Revenue, Tax Appeals Branch, P.O. Box 627, 33 King Street West, Oshawa, Ontario L1H 8H5.

The envelope containing this NOTICE OF OBJECTION must be postmarked within one hundred and eighty days after the day of mailing or delivery by personal service of the NOTICE OF ASSESSMENT or STATEMENT OF DISALLOWANCE OF REBATE/REFUND CLAIM to which objection is being made.

A separate NOTICE OF OBJECTION must be filed for each NOTICE OF ASSESSMENT or each STATEMENT OF DISALLOWANCE OF REBATE/REFUND CLAIM in dispute but, if convenient, facts and reasons may be consolidated.

Name of Taxpayer (CORPORATION, PURCHASER, REGISTRANT, VENDOR)	TELEPHONE NO.
Mailing Address	
CITY / TOWN	PROVINCE
	POSTAL CODE

NOTICE OF OBJECTION is hereby given to the:

<input type="checkbox"/>	Assessment No.	Date of Assessment			Amount of Tax	for Period ending		
		YEAR	MONTH	DAY	\$	YEAR	MONTH	DAY
OR	Statement of Disallowance				Statement Date		Rebate/Refund Amount	
<input type="checkbox"/>	of Rebate/Refund Claim No.						\$	
		YEAR	MONTH	DAY				

under the following act (check one only and indicate account/permit number)

<input type="checkbox"/>	CORPORATIONS TAX ACT	- Account Number								◀ Please indicate
<input type="checkbox"/>	GASOLINE TAX ACT	- Permit Number								
<input type="checkbox"/>	LAND TRANSFER TAX ACT									
<input type="checkbox"/>	RETAIL SALES TAX ACT	- Permit Number								◀ Please indicate
<input type="checkbox"/>	TOBACCO TAX ACT	- Permit Number								
<input type="checkbox"/>	FUEL TAX ACT, 1981	- Permit Number								

The following are the reasons for objection and the relevant facts:

(If space is insufficient, a separate memorandum should be attached setting forth the full statement of reasons for objection and relevant facts.)

☐ Check here if additional sheets are attached.

This NOTICE OF OBJECTION must be signed by the person objecting or the authorized signing officer of the company.

Date	Name (print)	Signature	Position or Office

Appointment of Representative

This will confirm that _____
has the authority to communicate on my/the company's behalf concerning this Notice of Objection.

Date	Signature of the person objecting or the authorized signing officer of the company	Address of Representative

1406 H (86 06)

O. Reg. 545/86, s. 1.

ROBERT NIXON
Minister of Revenue

Dated at Toronto, this 2nd day of September, 1986.

FUEL TAX ACT, 1981

O. Reg. 546/86.

General.

Made—September 2nd, 1986.

Filed—September 5th, 1986.

**REGULATION TO AMEND
ONTARIO REGULATION 772/82
MADE UNDER THE
FUEL TAX ACT, 1981**

1. Form 18 of Ontario Regulation 772/82, as remade by section 1 of Ontario Regulation 602/84, is revoked and the following substituted therefor:

Form 18

Fuel Tax Act, 1981

Ministry
of
Revenue
Ontario

Notice of Objection**INSTRUCTIONS:** Please print or type.

To be prepared in TRIPLICATE, ONE copy to be retained and TWO copies to be sent by REGISTERED MAIL addressed to the Ministry of Revenue, Tax Appeals Branch, P.O. Box 627, 33 King Street West, Oshawa, Ontario L1H 8H5.

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Name of Taxpayer (CORPORATION, PURCHASER, REGISTRANT, VENDOR)		TELEPHONE NO.
Mailing STREET AND NUMBER		
Address		
CITY/TOWN	PROVINCE	POSTAL CODE

NOTICE OF OBJECTION is hereby given to the:

<input type="checkbox"/> Assessment No.	Date of Assessment YEAR MONTH DAY	Amount of Tax \$	for Period ending YEAR MONTH DAY
OR <input type="checkbox"/> Statement of Disallowance of Rebate/Refund Claim No. _____	Statement Date YEAR MONTH DAY		Rebate/Refund Amount \$

under the following act (check one only and indicate account/permit number)

<input type="checkbox"/> CORPORATIONS TAX ACT	— Account Number	<table border="1" style="display: inline-table; width: 100px; height: 1.2em;"> <tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </table>											◀ Please indicate
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Date	Name (print)	Signature	Position or Office
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Appointment of Representative

This will confirm that _____
has the authority to communicate on my/the company's behalf concerning this Notice of Objection.

Date	Signature of the person objecting or the authorized signing officer of the company	Address of Representative
------	--	---------------------------

1406 H (86-06)

O. Reg. 546/86, s. 1.

ROBERT NIXON
Minister of Revenue

Dated at Toronto, this 2nd day of September, 1986.

(9377)

38

771



